PROSODIC AND INTONATIONAL CONSIDERATIONS
OF RAP MUSIC

Presented by
TAMARA KELLOGG

As
Senior Paper
for the
Program in Linguistics,
Swarthmore College

April 30, 1991
Many many thanks to:

The Power,
Paul, who kept me going,

my family:
Mom, Cliff, Jeff, Momma Libby and Daddy Bob,
Yolanda,

my friends:
Anna, Kamilla, Kelly,
and others who listened to my complaints,

The Sugar Hill Gang, who I enjoyed at age 12,
Public Enemy,
M.C. Hammer,
Nikki D,
Monie Love,
Queen Latifah, who inspires me,
and those who influenced them,

The Hip Hop Education Project:
Juan Martinez and Michael Costonis,

Cheapo Records, Cambridge, MA,
Newbury Comics, Boston, MA,
Mystery Train Records, Boston, MA,
Wee Three Records, Springfield, PA

S.J. Hannahs,
Ann McNamee,
Donna Jo Napoli,
Janet Bing,
Irene Vogel,
Marina Nespor,
John Goldsmith,
Noam Chomsky,

the Ling. majors:
Theresa, for leaving great messages,
Jen, Sue, Will, Bic, Burt

Leading Edge, Inc.,
The Wordperfect Corporation
Microsoft, Inc.,
Lotus Development Corporation,

and again,
Paul.
TABLE OF CONTENTS

1. Introduction ................................................. 1
2. A Brief History of Rap Music .............................. 3
3. Prosodic Considerations
   3.0 Introduction ........................................... 8
   3.1 Musical Concepts and Notation ....................... 9
   3.2 Prosodic Considerations on the Word Level ........ 13
   3.3 Prosodic Considerations on the Phrasal Level .... 20
4. Intonational Considerations
   4.0 Introduction ......................................... 27
   4.1 Intonational Contours in Bing (1979) .............. 28
   4.2 Intonational Contours of the Five Songs .......... 31
5. Concluding Remarks ........................................ 51

Appendix A: Statistical Analyses
   Musical Length of One-Syllable Words .................. ii
   Number of Multi-Syllable Words ......................... iii

Appendix B: Rhythm and Intonational Analyses of the
            Five Songs Under Consideration
   "Rapper's Delight," The Sugar Hill Gang ............... vi
   "Louder Than a Bomb," Public Enemy .................... xiv
   "Ladies First," Queen Latifah and Monie Love ........ xix
   "U Can't Touch This," M.C. Hammer ..................... xxiv
   "Daddy's Little Girl," Nikki D ......................... xxix

References ..................................................... xxxii
1.0 Introduction

Rap music has always been, and still is, marginalized in our larger society. Most people, particularly whites, are unfamiliar with the genre. Occurrences of rap music in the mainstream are laced with connotations of ghettos, gangs, crime, and generally bad scenarios. These are hardly conducive to legitimizing the music form.

The reasons for this marginalization are most likely numerous and complex; this paper will not attempt a sociological analysis of rap culture. What it will address is the question of the interface between the rapping and the music. Looking specifically at prosodic aspects and intonation, I will examine how the metrical structure and intonation of the language interact with the music that accompanies it.

I will begin with a short background of rap music, in Chapter 2. Basic history of the development of the art form will be given. In Chapter 3 I will discuss the prosodic aspects of rapping. Correlations between the rhythm of the music and
linguistic stress will be investigated on the word and phrasal level (syllable stress and word stress, respectively). Intonational patterns will be addressed in Chapter 4; I will look at the varieties of intonational patterns that occur, and the particular characteristics that distinguish them from the contours of "normal" speech, as given in Janet Mueller Bing (1979). I will also examine correlations between the music and intonational patterns. The conclusion in Chapter 5 will summarize my observations, and pose questions to the field that my research has raised.
2.0 A Brief History of Rap Music

Rap music evolved out of the disco of the late 1970s. Since disco was primarily concerned with dancing, the beat was integral to the song. Rap, sometimes called hip hop, picked up on this beat and carried it further, until the beat became primary, and the melody or accompanying harmonies secondary. The singers no longer sang, they spoke instead. More correctly, they rapped, using rhythm, rhyme and style to enhance the words.

According to Juan Martinez, founder of Swarthmore College's Hip Hop Education Project¹, the first major rap record released, now out of print, was "King Tim II" by The Fat Back Band. This was in 1979. Later that same year, the Sugar Hill Gang released a single called "Rapper's Delight."² It was a big hit, and the Sugar Hill Gang were well played on radio stations. This is considered by some to be the first rap released.³ The style of the song is relatively melodic: although the "singers" are not actually singing, there is a bass line and background harmony.
The beat is satisfying but plain: a basic disco beat. The rapping itself is also relatively simple, the pace is easy and the rhythms uncomplicated.

The Sugar Hill Gang released many other records, as, of course, did other groups. That first wave is referred to as Old School. The style remained relatively the same until 1983. In that year, Run DMC released a single, "It's Like That," which ushered in a new style. It was more complex rhythmically and electronically: synthesized sound effects and noises were used more frequently by the DJ, and there was less chordal accompaniment. The beat had become much more central. As well, syncopation was a more pervasive part of the beat, as opposed to the regular 4-beat pattern of "Rapper's Delight." This song, according to Martinez, marked the beginning of the New School. This style took off, and hip hop grew more and more complex. "Hard core" rap evolved, which involves very little chordal accompaniment, complex rhythms, and lots of electronically mixed-in samples of other songs, speeches, or music. The beat may often be interrupted, with the DJ manipulating the turntable to alter the playback of the record. The sound effects were now focused on, and DJs became another celebrity in the bands. Meanwhile, the MCs, or the actual rappers, strived for speed. The number of words per minute was often taken as a measurement of ability, and this hold true today as well.

Recently, since 1989 or 1990, there has been a backlash reaction to the New School movement, returning to simpler rhythms and melodic accompaniment. This is called the New Old School.
Some rappers have been trying to push rap into the mainstream music scene, and so advocate a more accessible style. M.C. Hammer's popular song "U Can't Touch This" is an example of New Old School. The style is not exactly the same as the Old School, however; mixing is still popular, and frequently the beat for the whole song will be "stolen" from some previously released song. This is true of all varieties of rap now. As Martinez said, "An original beat is extremely hard to find." In New Old School, however, the beats that are chosen are relatively simple compared to the New School. The rapping itself has also been simplified, though, and is slow compared to the New School.

At this point, several types of rap are being produced, as could be expected. Current bands have a wide variety of styles, and there are many names for different types, depending on what type of material is mixed in, the general semantic content of the lyrics, and the techniques used by the DJ. I was told there was even a backlash movement developing against the mainstream direction rap has taken. Also, as stereo technologies continue to develop, new DJ techniques will undoubtedly emerge, adding more variety and material for the genre to grow with.

For this study, I have chosen five songs. Although this is a very small sampling, I tried to get as much of a cross section as possible, focusing on recent songs, but not exclusively so. The selections are "Rapper's Delight" by the Sugar Hill Gang, "Louder than a Bomb" by Public Enemy, "Ladies First" by Queen Latifah and Monie Love, "U Can't Touch This" by M.C. Hammer, and "Daddy's Little Girl" by Nikki D. I've included a very
early song, and an assortment of recent ones. Occasionally throughout the paper I will be pointing out differences and similarities between the different types of rap, particularly new School vs. Old School, since this is a more significant difference for the linguistic aspects of the rapping.
Endnotes: Chapter 2

1. There is very little information available in print about the hip hop movement. References I was given regarding the history of rap were only as recent as 1984; the movement has changed significantly since then. As well, none of those titles could be found in bookstores. Mr. Martinez and his partner, Michael Costonis, are my main source for this chapter.


3. A few salespeople at record stores indicated this to me.


3.0 Introduction

I will begin my study with the prosodic characteristics of rapping. In this chapter I will deal primarily with a rule that I will call the English Song Principle (ESP). This rule states that in English language songs, linguistically stressed syllables must match up with musically accented beats. Liberman (1975) states, "For any two positions which are in the metrical relations Strong to Weak...it is not permissible for an unstressed syllable to occupy the strong position if a stressed syllable occupies the weak position." Rap follows this basic rule, but also contains variations that alter the realization of that rule in the music. Namely, rhythmically complex patterns generate seeming violations of the ESP, but the rappers compensate in order to accommodate the stress of the lyrics. The fact that this happens offers more evidence that the ESP is an extremely powerful rule in English.

I will begin with an explanation of musical concepts and
notation to familiarize the reader with necessary terminology. Then I will discuss, in section 3.2, the metrical characteristics on the word level (i.e. syllable stress), demonstrating how the violation and consequent compensation take place. In 3.3 I move up to the phonological phrase level, looking at the stress of words in relation to each other. It will be shown that the ESP continues to operate on this higher level, given data regarding length and placement of words in relation to the music.

3.1 Musical Concepts and Notation

Most people, when listening to music, have an intuitive sense of some sort of beat. In order to notate music, that beat must be divided into segments, so that it may be read with relative ease. What I will describe is this parceling of meter, and how it is notated.

Meter in music consists of a sequence of strong and weak pulses, or beats. This alternation of strong and weak beats may be divided into groups of a certain number of beats, called a measure. The length of a measure depends on how frequently the strong beats occur: if there is one strong beat for every three weak beats, the measure usually has four beats. If there is one strong beat for two weak beats, the measure will have three beats. In most rap music, and in all the songs I will be looking at, there are four beats per measure. The first beat is the strongest. The third also has some strength, although not as
much as the first, while the second and fourth beats are both very weak. Using the notation of metrical grid theory\(^2\), a standard measure would look like this:

\[
\begin{array}{cccc}
  x & x & x & x \\
  x & x & x & x \\
\end{array}
\]

where each x represents a unit of strength, so that the slot containing the most x’s is the strongest. This actually holds true for any sequence of four notes, no matter what the duration of those notes. In the songs I will be looking at, sequences of short notes will be what is often considered.

The duration of time that constitutes a beat changes from song to song, depending on the relative speed of the music. If one were tapping one’s foot to a piece of music, there would likely be at least three options for the speed of that tap: very fast, very slow, and somewhere between the two. For the purpose of this study, I will define a beat as the middle speed of tapping. The duration of beat which such a tap represents is called a quarter note, and is written like this: \(\frac{1}{4}\).

As I stated above, there are four beats to a measure, i.e. four quarter notes. Information such as this is noted at the beginning of a piece of music in the time signature. The time signature consisting of four quarter notes per measure would be written 4/4. The top digit represents the number of beats per measure, and the four on the bottom indicates that a quarter note equals one beat. For example, a song in 3/4 time would have three quarter notes per measure (e.g. a waltz), a song in 2/4
would have two.

A quarter note is not the only possible duration of a note in music, obviously; it may be divided or multiplied to yield other note values. They are as follows: two quarter notes equal one half note \((\frac{1}{4} + \frac{1}{4} = \frac{1}{2})\), and two half notes equal one whole note \((\frac{1}{2} + \frac{1}{2} = 1)\). In rap music the notes are not held out, for the most part. As a result, there are very few half notes, and no whole notes to speak of. A quarter note may also be divided into two eighth notes \((\frac{1}{4} = \frac{1}{8} + \frac{1}{8} \text{ or } \frac{1}{8})\), and an eighth note into two 16th notes \((\frac{1}{8} = \frac{1}{16} + \frac{1}{16} \text{ or } \frac{1}{16})\). In other words, the following all occupy one beat:

\[(3b)\]

\[
\frac{1}{4} = \frac{1}{8} = \frac{1}{16}
\]

Eighth and 16th notes may occur in a number of permutations, since they are both barred notes. However, only notes belonging to the same beat are barred together. For example:

\[(3c)\]

\[
\frac{1}{4} \frac{1}{8} \frac{1}{16} \quad \text{not} \quad \frac{1}{4} \frac{1}{8} \frac{1}{16}
\]

In addition, notes tend to be barred whenever possible, so that the quarter-note beats can be easily discerned by the reader. The following examples show the variety of possible combinations.

\[(3d)\]

\[
\frac{1}{4} \quad \text{or} \quad \frac{1}{8} \quad \text{or} \quad \frac{1}{16}
\]

One more notation is used frequently in rap music, and that is the tie. A tie \((\quad)\) is used to connect two notes that do
not belong to the same quarter-note beat. Since notes belonging to separate beats cannot be barred or combined into a note of the next highest value, a tie is necessary to show that there is a held note that happens to cross standard beat borders. The following example will serve to clarify the concept:

(3e)

\[ \begin{array}{c}
\hline
\hline
\hline
\end{array} \]

This sequence, if spoken, would sound like this: "da-daa-da." It is notated with a tie between the second and third eighth notes because they do not belong to the same quarter note, and so cannot be barred or combined. Any two (or more) adjacent notes, of whatever values, may be tied.

Finally, for every note value there is a corresponding value for silence; these are called rests. They are notated as follows:

(3f) \[ \begin{array}{c}
\cdot = \hline
\cdot = \hline
\cdot = \hline
\end{array} \]

I now move on to the linguistic findings.
3.2 Prosodic Considerations on the Word Level

Janda (1990) demonstrated the application of the English Song Principle (ESP) to various types of songs, showing the correspondence between musical accent and linguistic stress. In English language songs it is necessary for stressed syllables to match up with the strong beats of the music; a fact I call the English Song Principle. In 4/4 time, the strong beats are the first and third beats of a measure. So, for example, a word with the first syllable stressed should not begin on the fourth beat of a measure, or the second. As evidence Janda gave data that he had collected, having asked subjects to sing "Happy Birthday" with assorted multi-syllable names inserted in the line, "Happy Birthday, dear ______." Native English speakers always align the stressed syllable of the name to correspond with the strong beat in the measure (in this case, the first beat of a 3/4 measure). Violations of this rule do exist, but they are not the norm. To most listeners such violations make the lyrics difficult to understand, or they simply sound wrong.

Rap music obeys this rule as well, for the most part. In the majority of cases there is "proper" correspondence between stressed syllables and strong beats. However, there is a variation that occurs frequently; the following lines will serve as examples.
In (3g), the word *stomach* begins on the last 16th note of the second beat: a very weak position, since the following 16th note is strong, being the beginning of the third beat of the measure. This is misplaced according to the ESP, since it is the first syllable of *stomach* which receives stress in normal speech. However, this line in the song does not sound horrible, or even "wrong," necessarily. Looking at the intonation contour for the sentence (see Appendix B), we see that her intonation rises on *stom-* to give stronger stress to the syllable. Her intensity increases as well. This counters the strength of the beat; she does not sing, "my stomACH," even though the music accompanying her would lead her to do so. In effect, she creates an off-beat rhythm.

This type of rhythm, i.e. the accenting of normally weak beats to create an unevenness to the pattern, is called syncopation. Syncopation can have the effect of pushing the music forward, because it sounds a little like falling every time a syncopated beat is hit. A straight run of syncopated quarter notes looks like this:
Notice that if you tap your foot on the standard beats, and tap the rhythmic pattern out with your hand, your foot and hand will be in alternation with each other. Syncopated patterns can become extremely complex, to the point where the actual beat is virtually lost to the ear. This creates tremendous satisfaction for the listener when the plain beat is returned to; it feels like home. Rappers frequently use syncopation just for this purpose, disrupting the beat to combat monotony, and returning to it for a settling feeling.

What is worth noting about example (3g) is that the word creating the syncopation has two syllables, and so requires two separate attacks, or two separate notes. In effect, the syncopation is only the result of accenting the off-beats rather than the downbeats. This is different from (3h), in which one syllable takes up the length of an eighth note, so that only one attack is needed for each syncopated beat. I will call the multi-syllabic type complex syncopation, and the monosyllabic type simple. In complex syncopation, as in (3g), there is more potential for ambiguity in the stress of the word, and thus definite stressing of the appropriate syllable is called for to clarify that it is indeed syncopation that is occurring, and not a violation of the ESP. The following examples will demonstrate further what I mean.
(3j) Queen Latifah:

\[ \begin{array}{c}
\hline
\text{A female rapper...}
\end{array} \]

(3k) Public Enemy:

\[ \begin{array}{c}
\hline
\text{No tellin' who's sellin' out power buildin' the nation.}
\end{array} \]

In (3j) the rhythm is syncopated simply: a sequence of eighth notes follows a 16th note. Each 8th note gets one syllable, and each attack is accented musically. One would sing this rhythm, "da-daa-daa-da." Because each accented attack corresponds to a separate syllable, the alignment of lyrics to music is clear, and the ESP is not violated.

Example (3k) is complex syncopation. The rhythmic line is a solid sequence of 16th notes; all notes and syllables have the same duration. They do not, however, all have the same stress. The line is pronounced, "no TELLin' who's SELLin' out power BUILDin' the NATion." The rapper strongly stresses the first syllables of most words, increasing in intensity and pitch on those which I have capitalized (see Appendix B). This causes the feel of the rhythm to shift so that every third 16th note is accented, rather than every fourth, which is the norm. In this way, syncopation is created through the operation of linguistic stress.

In simpler terms, there is a basic difference between the two types of syncopation described above. In simple syncopation, as in (3h) and (3j), the off-beat rhythm is created musically and
the lyrics are made to fit into it. To demonstrate that this is the case, the line in (3h) could easily be rapped as the following:

(3l)

\[
\begin{array}{cccccccc}
\hline
& & & & & & & \\
& & & & & & & \\
\hline
\end{array}
\]

Cuz I'm guaranteed to make you rock.

However, the rapper prefers to add syncopation because it adds variety to the beat and makes the rapping flow; the version given in (3l) is boring. Complex syncopation, as in (3g) and (3k), is created more as a result of the lyrics themselves. It is the act of properly stressing the words that creates the syncopation; the line would be a plain series of 16th notes otherwise, with the first 16th of each beat accented by default, as in:

(3m) Monie Love:

\[
\begin{array}{cccccccc}
\hline
& & & & & & & \\
& & & & & & & \\
\hline
\end{array}
\]

stressin' I'm the daughter of the sister who's the mother of the brother who's the brother of another..

I am not stating here that this is unplanned or unconscious on the rapper's part. On the contrary, it is most probable that the syncopation was written into the music, and the lyrics were written to coincide with that syncopation. Evidence for this is the recurrence within a song of the same syncopated pattern (Public Enemy uses the syncopation in (3k) repeatedly). But in
complex syncopation the off-beats are a direct result of the linguistic stress, and the syncopation would not work if the linguistic stress did not hold. Simple syncopation does not have this dependence on the lyrics.

It is a development of the speed valued in the New School that solid 16th note patterns appeared, and consequently that complex syncopation developed. As more words were fit into a line, individual syllables received a smaller note value. To preserve the feel of the syncopation, lyrics had to be chosen so that stressed syllables fell in the appropriate places, i.e. the syncopated beats, not the regular ones. This generated complex syncopation such as is found most frequently in Public Enemy, Nikki D, and Queen Latifah, who are all New School (see Appendix B). In the Old School and New Old School, because the rapping is not as quick, there are not as many 16th-note runs, and so simple syncopation is more common. Multi-syllable words are spread out over a longer period of time (a measure, perhaps, instead of a beat), and so each syllable can receive its own accented beat in the syncopation rather than every second or third syllable being accented.

There are instances where the linguistic compensation for the "misalignment" is not adequate: perhaps the intonational contour does not rise enough, or the rapper does not increase his or her intensity enough to override the musical sense. The following lines are examples of this.
This example sounds forced on the recording, and was extremely difficult to understand. In Appendix B there are other places where I could not decipher lyrics (they are underlined): these could well be instances of misalignment without sufficient compensation. This particular instance may also have a general rhythmic factor contributing to the ambiguity: in speech the sentence "I think I’m about due" cannot be said with each syllable receiving the same duration. About begins with a highly reduced syllable, making it very short. Musically it would receive a 32nd note, not a 16th. Since this is not possible in this musical line, the syllable receives more stress (i.e. longer duration) than is normally should, and -bout is weakened in comparison. This additional factor working against the normal stress of the word makes it impossible to overcome the misalignment and so the line sounds bad.

There are two methods by which a rapper tends to compensate for the musical off-beats. One is to overtly stress the necessary syllable, in order to override the musical strong beat. All the previous examples have used this method. The other technique is to de-stress everything in the line, so that the rapping sounds much like normal conversation. The intonation contour levels out compared to standard rapping (which usually has frequent rises and falls, as I discuss in the next chapter)
and the rapping sounds "talky." This second method is used almost as frequently as the first, particularly by Nikki D and Public Enemy, and the resultant sound is usually labelled hard core. Queen Latifah and Monie Love also do this occasionally. The following are examples.

(30) Queen Latifah:

\[
\text{Coolin' on a scene with my European partner}
\]

(3p) Monie Love:

\[
... to the new generation of prophets
cuz it's ladies...
\]

I have demonstrated in this section that rapping conforms to the ESP, but also elaborates on it, using syncopation to vary the location of the strong beats, and therefore allowing the stressed syllables within words to fall on beats other than the standard downbeats. I now move up to the next level on the prosodic hierarchy: the phonological phrase, to look at how the ESP operates between words of different stress.

3.3 Prosodic Considerations on the Phrase Level

It was shown in the last section that the ESP applies on the
word level, affecting the stress assigned to syllables and the correspondence to musical downbeats. In this section I continue to consider the ESP, but on the phrasal level, examining the stress assigned to words. It will be shown that the ESP does apply on this higher level, insuring that words which in normal speech do not receive stress are aligned with unaccented beats, and that stressed words align with strong beats. However, unlike syllable stress, word stress is not as hardy and thus is more susceptible to violation. In other words, if misalignment occurs it is more likely to sound incorrect to the listener, because it is harder to compensate for the violation of the ESP on the phrasal level.

Bing (1979) states that studies have shown duration to be the predominant factor in a listener's perception of stress. Intensity also plays a role, but not to the same degree as the actual length of a syllable. With this in mind, I examined the note values assigned to typically unstressed words, such as articles, prepositions, forms of to be, genitive pronouns, and, or, and it in Public Enemy and the Sugar Hill Gang. The exact results are listed in Appendix A. Overwhelmingly, unstressed words were likely to receive a 16th note value rather than an eighth or quarter. (In the Sugar Hill Gang, the ratio of 16th notes to eighth notes for occurrences of the is 62:0.) To be sure that this was indeed a result of the lack of stress rather than the fact that they were one-syllable words, I compared the ratios for the "small" words to "non-small" one-syllable words, i.e. words that typically carry more semantic meaning, and which
therefore are more likely to receive stress in normal speech. The ratios for these words were not nearly as high as those for "small" words. (In Sugar Hill Gang the ratio for 16th to eighths was 10:16.) This offers evidence that the English Song Principle does indeed extend to the phrasal level.

In addition to the duration assigned to a word, the correlation between which particular beat of the measure a word falls on is also a factor in its receiving musical stress. Here, because so many of the patterns under consideration are 16th note sequences, the important strong beats are the first and third 16ths of a quarter note, rather than the first and third quarter notes of a measure. (Although those, two, are stressed, they are important on a larger scale than that which I am concerned with here.) Word stress, like syllable stress, also follows the guidelines of the ESP in this way. This can be shown through a negative proof: as was found at the syllable level, there are instances of violations of the ESP at the word level in rap music. Because these cases sound incorrect, they are evidence that the ESP applies at this level. The following are examples:

(3q) Nikki D:

\[\begin{align*}
\text{...so let's keep it this way.}
\end{align*}\]

(3r)

\[\begin{align*}
\text{...when his angel must spread her wings.}
\end{align*}\]
In (3q) and (3r) the problem is the placement of the words in relation to the meter of the music. *Keep it* and *spread her wings* are misaligned: *it* and *her* are on strong beats, both the first 16th note of the quarter note to which they belong, while *keep* and *spread* fall on the weakest beat: the fourth 16th of a quarter note. In addition, *her* is in a weak position in its phonological phrase, according to Nespor and Vogel (1986)\(^6\): further evidence of its unstressed status. These two examples sound questionable. Nikki D attempts to compensate for the violation with her own stress, but it is not effective; a syncopated sound is not really achieved. Both sentences sound somewhat squeezed into the music. Example (3s) is a similar case, with *wish to slay* misaligned. *Wish* falls on a weak beat in relation to *to*, which comes at the downbeat of a quarter note. This line was extremely difficult to understand, and as it stands I still am not sure if the lyrics are correct as I have written them.

(3s) Monie Love:

\[
\begin{array}{c}
\text{And the material that has no meaning I wish to slay.}
\end{array}
\]

Example (3t) contains two types of violation, both involving
break his. The second occurrence of the words in the sentence is a misalignment with the musical meter: his falls on a strong beat, which it should not. The first time she says these words, however, the issue is length: break should receive a longer note value than his. Here this does not happen. However, the line does not sound wrong; the reason is because of the placement in respect to the weighted beats of the music. Break, even though given only a 16th note value, falls on the first beat of the measure: a very strong position. This compensates enough so that the line still sounds smooth. This demonstrates another facet of the ESP: alignment of lyrics with the musically prominent beats is a stronger factor in the stress of a word than the durational value it receives.

(3u)

```
| | | | | | | | |
```

Ever went over a friend’s house to eat...

Finally, example (3u) demonstrates a combination of factors. Friend’s house to eat is an uncomfortable phrase in this line. This is the result of two things: the misalignment of words with musical beats, and the duration. This line is the least smooth out of all five songs, in my opinion. House should receive more stress than friend’s since it is the head of a phonological phrase. However, here it is placed in a position of lower stress (the third 16th of the quarter, whereas friend’s is on the first 16th), and is also given a shorter note value. In addition, there is another element, which is the weight of the syllables.
The sequence house to eat involves both a relatively heavy syllable (house) and a glottal stop between to and eat. These make it difficult to say this phrase quickly, and yet that is exactly how it is rapped here. I believe that this contributes to the discomfort with the line. If the line were stated the following way, there would not be as much of a problem:

(3v)

Ever went over a friend's house to eat...

Here, the syncopation removes the misalignment problem, and house is given a longer note value, so that it does not sound so cramped.

The above examples of sentences problematic to word stress indicate that the musical beat is not as easily manipulated by word stress as it is by syllable stress. In section 3.2 it was shown that stressing of the correct syllable linguistically can alter the beat of the music, creating a syncopated pattern. However, as this section has shown, although stressed syllables may override musical tendencies, word stress is not powerful enough to do so. I have shown that the ESP extends, including word stress as well as syllable stress in its requirements of alignment with the musical rhythm. Both the note value assigned to a word and the placement of a word in relation to the strong beats of the music are factors in determining the stress assigned to that word, and both need to be taken into account when aligning lyrics with music.
Endnotes: Chapter 3


3. This idea comes from Chen (1984).

4. The examples given in Janda’s lecture did not operate this way; for cases in which the rule was broken the singer still accented the **musically** strong beat, rather than pronouncing the word correctly.


6. Nespor and Vogel (1986), p. 168. The rule is that in right-recursive languages, the rightmost member of a phonological phrase is the head, and so receives stress.
4.0 Introduction

In this section I will discuss the intonational characteristics of rap music. Although it might appear strange to be considering intonation in a musical genre, it must be remembered that rap music has no melody in the lead voice. Because the lyrics are spoken rather than sung it is possible to consider intonation. I will move away from the issue of musical interaction to some extent in this section, and look more at the particular types of intonational contours found in the five songs. This will lead to some questions regarding intonational theory in general, and I will raise these issues as they come up. To finish I will return to the music, looking at the correspondence between intonational phrases and musical phrases.

I will begin with a very brief explanation of the intonational contours described in Bing (1979). My knowledge of intonation comes from this work, and so I base my observations on her findings, for the most part. I will then describe the
intonational contours I found in the songs I am looking at, some of which correspond to those in Bing (1979) and some of which do not. I will examine those that do not separately, and consider the problems they raise. Finally, I will look at the interaction between the music and the intonational contours that operate on top of it. It will be shown that in some cases musical context affects the realization of a contour, an important clue to the understanding of the relationship between music and language.

4.1 Intonational Contours in Bing (1979)

Bing (1979) includes, among other things, an inventory of contour shapes found in the English language as she and others found them. My knowledge of intonation is based on this work, and so I will use the contours she lists, as well as her notation. She describes five basic contours from which other contours may be derived through the use of rules that move tones. A chart showing these contours is contained in Figure 1.

These contours are composed of a series of rising and falling tones (called [+fall] or [-fall]), both within a contour and at its boundaries. "R" in the chart represents the nuclear syllable, or most stressed syllable within an intonational phrase. Where the tones occur in relation to the nuclear tone is one factor which determines how a contour is interpreted. Other significant factors are the type of boundary tones that occur (a rising tone in final position usually indicates that the speaker
is not yet finished with the sentence), and whether the nuclear
tone (that associated with the nuclear syllable) is rising, as in
the B contour, or falling, as in the A contour.

There is very little understood about intonation, however,
and the theory as presented by Bing (1979) is just that: theory.
The field has not yet come to agreement about most issues, except
that some sort of system must exist. With this in mind, I mapped
out the contours for the five songs I am analyzing as best as
possible. The goal of this was two-fold: to look for specific
characteristics of rapping intonation, and to confirm or
disconfirm Bing's assertions about intonation. Although I do not
have enough material nor have I done enough research to issue any
general critique of Bing's work, I do find some interesting
differences between my data and her assertions. I will examine
these differences one at a time, discussing the findings and
their potential repercussions. I will not propose any solutions
to the problems that may arise for Bing's theory; such an
undertaking is too large for this paper.
**Although these contours only contain high, mid and low as tones, I preferred to include a "high-mid" tone, which I diagram with a line through the middle of the text. I felt that this more accurately represented the way that I heard certain contours.**
4.2 Intonational Contours In the Five Songs

In the process of determining the intonational contours for the songs I looked at, I encountered a few difficulties with the process in general. To begin with, it is difficult to define any contour without a computer-determined graph for that contour, showing precisely the frequencies of the pitches involved. This sort of analysis was impossible to obtain in this case, due to the music in the background which would interfere with a clear reading. The only instrument I had available to me was my own ear, which admittedly is not as accurate as a computer, and which is also capable of being deceived by the background music.

In addition to such technical difficulties, I encountered cases which were extremely ambiguous because of the actual shape of the contours themselves. The following example will demonstrate what I mean.

(4a) Queen Latifah:

There is a regular fluctuation in (4a) that is difficult to hear as any specific contour according to Bing's (1979) inventory. It would be possible to divide it up into many small contours, with each high tone being nuclear, but problems arise with this. Were one to assign one contour for every high tone, the analysis would look like this (see Appendix B for an explanation of symbols):
According to Nespor and Vogel (1986), the major rules for forming intonational phrases (IPs) are to make parentheticals or extra-sentential phrases their own IP, to break after noun phrases, to break before separate clauses, and to not separate an obligatory object from its verb. Example (4b) breaks several of these rules; clearly such an analysis is not correct. However, larger IPs are difficult to determine; which high tones are significant and which aren’t is mostly a judgement call as to what the speaker intends exactly to highlight. I often did not feel that I could securely make such a decision, and in Appendix B these places are left unlabelled.

Other times there was a simple choice between two different interpretations, as in the following example:

(4c) Queen Latifah:

This line could be broken into two IPs, as I have it analyzed in (4c), or it could be four IPs, with boundaries after ladies and rhymin’. My impression is that the analysis of two IPs is the correct one, but this demonstrates how fluctuations can occur even within contours that do match up with Bing’s. In these
cases the analyses are based on my own subjective judgement, and
may not be entirely consistent. I believe that sentences such as
these would cause debate among almost any two linguists as to the
correct analysis.

Other types of lines also generated difficulties. Introductory phrases, such as I said, Y’see, and Now are
sometimes their own IP and sometimes connected to the sentence as
a whole. In these cases speed should be a factor (as it is in
normal speech), but this is not always the case. In fact, even
though rapping is at times extraordinarily fast, sentences may
still contain many IPs; there obviously are different rules
operating than in speech.

Ambiguous cases aside, there are both similarities and
differences between the data I found and the literature I read
about intonation in English. For the most part, the contours
Bing (1979) lists in her chart are found in the songs I
considered. These include the A, A-rise, C, B, Class O, and
Contradiction (both underlying and surface form) contours. The
Rise-Fall and Derived A-rise were also occasionally used.
However, there were contours that were not covered by Bing (1979)
that were present in the songs; it is to these that I now turn.

A frequent variation I encountered was most likely a form of
the A or A-rise contour. This variation involved the maintenance
of the high tone over a large part of the IP, as in the following
examples.
In Bing (1979), the examples of the A and A-rise contours always have one syllable given a high tone, while the rest are mid or low. She shows no instances of the high tone lasting until the final stressed syllable of the IP, as is the case in (4d) and (4e), and other lines like them. This phrases could be reanalyzed as two IPs, but that would yield a B contour (now you know, I'm rappin') followed by an A contour (you wanna dance, to the beat), a combination for which there are no examples in Bing (1979). In this case I agree that these should be considered one IP, rather than two; there should be a rule, then, that accounts for the potential length of the high tone in A and A-rise contours.

Another variation involves a contour that is basically flat. Frequently a rapper will maintain the same tone, or drop only for de-stressed words, for a whole line of text. The following are examples:
In both (4f) and (4g) the predominant feeling the listener obtains from the contour is one of a single tone, a pitch, maintained throughout. The line sounds intentionally flat, so to speak. Nothing is overtly stressed, at least not through the use of high tones. Since the fluctuations are based solely on dropping pitch for destressed syllables, high tones do not correspond precisely to nuclear syllables. In other words, the changes in tone are the result of destressed syllables rather than stressed ones. This is not the way most of the contours are defined in Bing (1979). Her Class 0 contour is the only one that does not contain any prominence tones, or changes in pitch based on a nuclear syllable, which distinguishes it from the other contours. However, the flat contour is not Class 0, because it
occurs within the main clause of a sentence, rather than external to it. It is a contour that does not occur sentence finally; it does not have a [+fall] boundary tone at the end of it that signals the end of a sentence. While contours such as A-rise and C may occur sentence-finally occasionally, this flat contour cannot hold that position. The following example does not sound good:

(4h)

Although this contour is definitely a secondary contour, in that it can alternate with the A-rise and C contours, it should, I believe, be recognized as a separate contour. It functions most like A-rise or C contour, since it occurs in sequence as A-rise and C contours do; and it could be derived through tone deletion rules. However, this contour is not used much in normal speech, and thus perhaps should not belong to a list of standard contours for English. It could be classified as a Stylized contour, however, particular to rap and possibly other types of specialized speech.

There is another feature that recurs in the five songs I considered; often there is a phrase-initial rising boundary tone. In Bing (1979) this is categorized as a contradiction contour, with an underlying form that resembles an A-rise, and a surface form similar to a C contour. She writes: "the most
characteristic form of the contour seems to be one with a [-fall] boundary in sentence initial and sentence-final position." In some cases, the contours in the songs with [-fall] initial boundary tones were indeed contradiction contours: the semantics of the sentence indicated that some sort of questioning of information is occurring, or new information is being introduced that the listener might find surprising. For example:

(4i) Monie Love:

\[\text{Not to be a one} \quad \text{but to be a with one}\]

(4j) Nikki D:

\[\text{Not the girl that Daddy knew}\]

There are cases, however, where a [-fall] initial boundary tone occurs and the statement is not a contradiction. For example:

(4k) Queen Latifah:

\[\text{Stereotypes they got to go}\]

(4l) M.C. Hammer:

\[\text{Give me a song}\]
The reason for the initial high tone in (4k) and (4l) is the fact that the first syllable receives stress. In (4k) the first syllable is the naturally stressed one; it (4l) M.C. Hammer chooses to emphasize the first syllable, and so it receives a high tone. In other words, these examples may not have a [-fall] initial boundary tone, exactly. Rather, the nuclear syllable happens to be the first syllable of the phrase. This results in an apparent [-fall] initial boundary tone.

The examples I've given of the [-fall] initial boundary tone in rap music have so far been fit into Bing's (1979) contours: they can be analyzed either as contradiction contours or as the location of the nuclear syllables at the beginning of the phrase. The are cases, however, where these analyses do not fit. Take the following examples:

(4m) Monie Love:

[to enable you to aid yourself] [and get paid]

(4n) Nikki D:

[A princess with the sound]

(4o)

[A pocket full of dreams]
In these examples the initial boundary tone seems to be a stylistic variation. None of these IPs are contradictory in nature, nor do they begin with a particularly stressed syllable. For example, in (4m), although it is possible for a preposition to be semantically stressed in certain situations, the context here does not warrant this. For (4n) and (4o), it certainly is not the case that the indefinite article is semantically stressed. Instead, for all three examples, there is a [-fall] initial boundary tone, causing the pre-head of the contour to be a high tone. This does not create any semantic difference; it simply adds variety to the speech pattern. Variety is a necessary part of rapping, as I mentioned in the last chapter regarding syncopation. The initial boundary tone provides a contrast to the "normal" intonational pattern of a low pre-head.

More evidence supporting that this is not a contradiction contour comes from the end of the phrases. The contradiction contour, in both underlying and surface form, has a [-fall] boundary in final position. Many of the variant phrases with high pre-heads in the songs have a [+fall] final boundary tone. For example:

(4p) Monie Love:

[Let me state the position]

This sentence could be analyzed as a B contour (let me state) followed by an A contour (the position). However, I do not think
this analysis would be accurate: Bing (1979) does not discuss such a combination, and although there are cases I will show which do contain a B - A sequence, they are not sentences of this type. So the analysis of (4p) is an A contour with a high pre-head, or a "contradiction" form. Bing (1979) does not mention any such contour; both of the contradiction contours she lists have a [-fall] final boundary tone, which the A contour does not have.

I believe that the contradiction contour should not have such a limitation on it; I see the contradiction as a potential form for contours, rather than a separate contour by itself. Even the B contour can have a contradiction form, as I will show later. One meaning of the contradiction form of a contour would be the same as that suggested in Bing (1979), that there is a questioning of the previous discourse. But there are other meanings to a high pre-head that involve introducing new information, or information that may be surprising to the listener. It also can be an emphatic technique that attempts to call attention to the speaker, as in (4p). All of these meanings can be grouped into the contradiction contour, as I see it; they all involve some sort of surprise or contrary feeling.

One of Bing's major hypotheses is the alternation between the C contour and A-rise contour. She asserts that the two contours have similar functions, and can be exchanged for one another in any given environment. Combined with this is the idea of which sequences of contours are allowed in an utterance; the C and A-rise contours can occur freely in a sentence with one
another. However, she states, "it is quite difficult to conjoin or place in a series different intonation contours, with the exception, of course, of the A-rise and C contour."

She gives numerous examples of assorted combinations of contours which she feels are bad. I agree with most of her judgements here. However, her examples are all questions, as if the only type of sentence that can take a B contour is an inquiry. She also does not address the issue of contour ordering in other types of sentences, such as those that contain implicated clauses, object clauses, or sentences with phrases that receive separate intonation contours. The examples throughout her dissertation tend to be only one contour; those that do have more than one do not combine the B contour with any other, unless the sentence is starred.

In the five songs I found several occurrences of B contours followed by A or A-rise contours. In some cases these are admittedly ambiguous in the analysis; what I analyzed as two contours might in fact be one with fluctuations. However, there are sentences which are undoubtedly B - A patterns:

(4q) Nikki D: [And in about three months] my stomach will be plump]
These examples all have a sort of cause-and-effect relationship between the clauses, an implication of the second clause by the first. It makes sense that the B contour is allowed here, and I find no problem with these sentences (indeed, they cannot be "wrong," because they have been said by someone). Bing (1979), however, does not address sentences such as these.

There are two sequential sentences in The Sugar Hill Gang that appear to contain both B and A contours.

(4t)

(4u)
These examples are ambiguous in their analysis, and in fact can be made to fit into Bing's hypothesis. The analysis is dependent on the two phrases: and my friends and and the brown. These could be considered either A-rise contours, or B contours with a contradiction pre-head. Bing (1979) does not discuss this type of contradiction B contour. I would assert that the latter is the correct analysis, providing evidence that sequencing rule in Bing (1979) is correct. This idea of the high and introducing the last member of a sequence makes intuitive sense as well, and occurs frequently in speech. It can, in extreme, be isolated with a gesture of a finger in the air: "And...!" What I am postulating, then, is that the B contour, as well as the A-rise and C contours, also has a "contradiction" form in lists.

There is another characteristic found in all five songs that to a certain extent contradicts accepted information about intonation. One point of agreement among intonational linguists is that the [+fall] boundary tone at the end of a contour indicates that the speaker is finished with a sentence or thought. However, I found many sentences where the A contour, which ends with a [+fall] boundary tone, occurs sentence-initially or -medially. For example:

(4v) Sugar Hill Gang:

```
[See I go] [by the code] [of the doctor of the mix]
```
In most of these examples there is a common factor: some sort of pause or rest where the A contour ends. In (4v) and (4y) the eighth notes in the line appear at the end of IPs, creating the effect of a pause, even though there are no actual rests. The fact that there is a pause between contours in all of these lines is most likely what causes the presence of an A contour rather than an A-rise. Technically, if a sentence is continuing, an A-rise is what should occur. However, in these examples there is a sort of game between the rapper and listener, where the rest creates a break and the [+fall] boundary sounds like a sentence is finished, but when the rapper speaks again, it is a phrase or clause that continues the past sentence. In (4w) and (4x), the listener is left thinking "wave what?" or "forget what?" during the pause. However, although the sentences are semantically incomplete, the grammatical structure of the sentence is
complete; both *wave* and *forget* can operate as intransitive verbs. In (4v) and (4y) it is a prepositional phrase that is delayed with the pause, a structure that too is optional grammatically, if not semantically.

In addition to the playful aspect of this non-sentence-final use of the A contour, it is likely that musical factors are influencing the intonation. In normal speech, the only clues as to whether a speaker is continuing or is finished is intonation (and perhaps pragmatic considerations such as gestures). In a song, the music gives clues about whether the end is near or not. In other words, the rapper does not need to give such obvious clues in the intonation, because it is apparent from the music that the song will continue, and thus the rapping also. This allows the rapper the freedom to play in the way described above. Also, it is known by linguists that in faster speech, the A-rise contour is realized as a short fall rather than a fall and a rise. By using the A contour instead of the A-rise, the rapper creates more variation in the intonation, because the fall is deeper than it would be with an A-rise contour. This is a stylistic point, but important all the same because style in rapping is much of what distinguishes it from normal speech.

Music influences the intonation in other ways from that I just described. The following pairs of lines illustrate one such way:
Each pair has the same contour for both lines. In (4z) the two lines are adjacent in the song, in (4aa) there are several lines of text between the two given here. However, (4z) and (4aa) are both cases where musical considerations are influencing the intonation, because they both contain parallel phrases. In (4z) the parallelism is obvious as one listens to the song; just as lines rhyme they may be said with the same intonation to create a similarity. In (4aa), although the lines are not said one right after the other in the song, the same idea applies. Both lines in (4aa) begin with I never, and upon hearing the second line the listener remembers that the first one had a similar form. Were the intonational contours of the rapping to operate completely independent of the music, this sort of parallelism would not occur.

With this idea of musical influence on intonational contours
of rapping, I return now to the fluctuating contours I mentioned at the beginning of this section. Example (4a) was the following:

(4a) Queen Latifah:

\[ \text{A sister so dope enough to make you holler and scream} \]

Other examples of this sort of fluctuation are:

(4bb) Monie Love:

\[ \text{Excuse me but I think I'm about to die} \]
\[ \text{To get into precisely what I am about to do} \]

(4cc) Public Enemy:

\[ \text{Our statue is the saddest so I care where you at} \]

(4dd) Queen Latifah:

\[ \text{Who said that the ladies couldn't make it} \]
\[ \text{You must be blind} \]

With all of these lines, determining the formal intonational
contours is difficult. Factors of contour shape or domain do not always match up, and often cannot be resolved. In fact, the listener does not hear these lines as much except a series of regular oscillations. The key is that the changes must correspond with something: what they match with is the music. The contours of (4bb) and (4cc) are very similar, shaped roughly like this:

(4ee) 

Both of these lines have a rhythm composed of solid 16th notes. As well, the high tones occur unanimously on the first 16th of each beat: the strongest 16th note. So, the intonation works with the music to stress that note (since the syllable aligned with that 16th must also be stressed, according to the English Song Principle). In other words, the reason the intonation rises in these places and drops in others is to coordinate with the strong and weak musical beats. The same happens in examples (4a) and (4dd). In these cases, however, the rhythm is syncopated, so the strong beats do not fall regularly. The intonational contour conforms to the syncopated beat, rising with the strong beats and falling with weaker ones.

This phenomenon of intonation being affected by the rhythm of the background music is a major factor causing rap to sound different from normal speech; I have shown examples where this occurs. I have also shown qualities of rapping that differ from
normal speech, which are usually intended to add variety to the speech in order to maintain interest. In conclusion, it has been shown that music often influences the shape of the intonational contour in rap.
1. She actually uses several types of notation and assumes that the reader is familiar with all of them. I have chosen to use a linear notation; what it lacks in precision it makes up for in ease of legibility.

2. Taken from Bing (1979), p. 139.


4. The sentence in (4f) stated with either A-rise or C contours sound fine.


6. See Bing (1979), p. 7, for a complete explanation of the parts of the intonation contour.

7. See Bing (1979), p. 89. She develops a rule for the derivation of the C contour from the A-rise, hence the C contour’s listing under secondary contours in her chart.

5.0 Concluding Remarks

In this final section I summarize my findings, explore topics for further study, and propose the consideration of an approach to intonational linguistics based on musical analysis.

I have demonstrated through the analysis of five rap songs that there is close interaction between lyrics and the music that accompanies them. In rapping this is evidenced by both the prosodic aspects and the intonational contours. In the prosody, the musical rhythm may create a pattern that the lyrics are forced to follow, and alternatively the lyrics may cause the beat to shift and be syncopated. Intonationally, there is a relationship where the music exerts more influence, often determining the shape of the contour based on musical downbeats or syncopated patterns. In both areas there is obviously a sophisticated interdependence between musical phenomena and linguistic considerations.

There were many limitations on what I was able to
accomplish, limits on time and resources. Had I had more of both of these there are several things which I would have looked into to gain a fuller understanding of the characteristics of rap.

Rapping began as a spontaneous art form, and it is this which drew me to it initially. I believe that a study of spontaneous, rather than professionally recorded rapping would yield more valuable information about the interaction of music and language, since there would be no opportunity for elaborate preparation or lyric writing. In such a study further aspects of the rapping such as syntax and word choice could be examined with potentially interesting results. With recorded rap, the lyrics are prewritten and so do not reveal as much about the spontaneous processing of language by the mind.

In addition, it would have been helpful to have a direct comparison between rapping and speech. This could have been done through a study with subjects speaking the lyrics to rap songs that they had not heard before. How the spoken lyrics differ from the rapped lyrics could have important results.

The differences I encountered between my data and the examples found in Bing (1979) led me to question somewhat the pool from which she drew her data. Almost definitely she pulls on her own experience, which is white, educated, East Coast American English. I would not be surprised, since intonation is such a flexible aspect of language, if it was found that contour inventories varied somewhat from one section of society to another. And, although one might argue that theories must be formulated before anthropological work can be done, I would argue
that theories should not be based on a narrow group of speakers. With this in mind, I would be interested in studies of the intonational patterns of minorities in English-speaking countries.

In another vein, it became apparent to me during my research that there have been few breakthroughs in understanding intonation clearly. The different prosodic theories of the hierarchy versus metrical trees have not been reconciled, and this adds to the difficulty of determining the domain of the intonational phrase. I agree strongly that intonational phrases may not be required to correspond to any syntactic phrasal or clausal notion, but that they often do. However, during the course of my study for this paper, I began to develop an idea for intonation based on musical concepts.

Because much about prosodic phonology is similar to music in nature, intonation could very well operate the same way. Prosody is the metrical and rhythmical qualities of language; intonation is the melodic quality of language. With this in mind, it might be that intonation in language has a similar structure that complex musical pieces do melodically (language is obviously a complex function of the mind). In musical analyses of melody, one often looks for small- and large-scale representations of the same pattern. For example, take the first line of "Three Blind Mice":

(5a) [Music notation]
If this pattern were to be repeated three times, each time down one pitch, it would look like this:

\[(5b)\]

If the first note of each group were considered here, it is seen that a larger melody is created which is the same as the smaller melody within each group. There is a layering that occurs.

It is this idea that I find potentially fruitful in thinking about intonation, particularly with regard to the data I considered. Many sentences were ambiguous and difficult to analyze because of the destressing of syllables and the resultant dropping of tone. Whether to consider each drop significant or to look at the larger contour instead was a question I was often unable to answer. The literature that I have read does not address this; contours are discussed in the abstract frequently, with straight lines drawn to represent what in reality contain minor oscillations in pitch. The question remains, what constitutes a significant change in pitch versus an insignificant waver in a speaker’s speech? The answer certainly cannot be an absolute constant; pitch and degree of vacillation vary radically from one mood to the next in the same speaker’s speech, as well as from one person to the next. In short, such fluctuations perhaps ought not to be deemed insignificant at all, but should be considered part of a small-scale contour. Otherwise, it seems to me that any intonational analysis could vary depending on the
linguist's tendency to look at large scale emphasis or small scale emphasis. Since stress is relative, obtaining an absolute method of analysis that has as a component elimination of "insignificant" changes in pitch seems counter-intuitive.

I do not know whether the different levels of contours would have similar forms or not; perhaps larger levels would not have A, A-rise, B and C contours. It is known that there is some difference between any contour begun on a low tone and that same contour begun on a high tone. But it is often thought that such difference is solely emphatic. I believe that it is not as simple as that. In addition, the question of sentence stress versus IP stress versus word stress (i.e. the fluctuations I found in the rap songs) could be resolved through the establishment of different levels of stress assignment. In this way all of these varieties of stress could be taken into account. I have not had the resources or time to look further into this issue; indeed, that would be far beyond the scope of this paper. However, the findings from this study have led me to believe that such an approach would be well worth investigating.
Endnotes: Chapter 5

1. Nespor and Vogel (1986) argue for a prosodic hierarchy largely independent of syntax: I agree with this.
APPENDIX A:

Statistical Analyses
Musical Length of One-Syllable Words

For the following statistics, the ratios are 16th notes to eighth notes of any larger value than eighth. For many the ratio represents simply the actual number of occurrences of each, such as ratios containing zero. In cases where reduction was obvious, the figure was reduced for ease of comparison; some of these contain halves (e.g., 4.5:1).

Figures for "it" include the contraction "it's" and "ain't." Prepositions include "in," "on," "at," "by," "for," "out," "to," "of," "with," "from," and "outta," which count as two ("out" and "of"). Genitive pronouns include "my," "your," "his," "her," "our" and "their." Forms of "to be" include contractions with pronouns.

"Small" words are those listed at the left. "Non-small" words are all other one-syllable words.

<table>
<thead>
<tr>
<th>SMALL WORDS</th>
<th>NON-SMALL WORDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Enemy:</strong></td>
<td></td>
</tr>
<tr>
<td>the: 35:1</td>
<td></td>
</tr>
<tr>
<td>a/an: 16:0</td>
<td></td>
</tr>
<tr>
<td>it: 14:0</td>
<td></td>
</tr>
<tr>
<td>and: 13:0</td>
<td></td>
</tr>
<tr>
<td>genitive pronouns: 10:1:1</td>
<td></td>
</tr>
<tr>
<td>to be: 5:1</td>
<td></td>
</tr>
<tr>
<td>prepositions: 4.5:1</td>
<td></td>
</tr>
<tr>
<td>but: 2:0</td>
<td></td>
</tr>
<tr>
<td>or: 1:0</td>
<td></td>
</tr>
<tr>
<td>TOTAL: 11:1</td>
<td>TOTAL: 30:20:1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The Sugar Hill Gang:</strong></td>
<td></td>
</tr>
<tr>
<td>the: 62:0:1</td>
<td></td>
</tr>
<tr>
<td>a/an: 12:1</td>
<td></td>
</tr>
<tr>
<td>prepositions: 5:1:2</td>
<td></td>
</tr>
<tr>
<td>genitive pronouns: 4:1</td>
<td></td>
</tr>
<tr>
<td>but: 4:0</td>
<td></td>
</tr>
<tr>
<td>and: 2:1</td>
<td></td>
</tr>
<tr>
<td>or: 1:0</td>
<td></td>
</tr>
<tr>
<td>to be: 1.5:1</td>
<td></td>
</tr>
<tr>
<td>it: 1.5:1</td>
<td></td>
</tr>
<tr>
<td>TOTAL: 5.5:1</td>
<td>TOTAL: 10:16:1</td>
</tr>
</tbody>
</table>
Number of Multi-Syllable Words

This is a simple count of the number of multi-syllable words that appear in each song. The number in parentheses by the band name is the total number of words in the song. Repetitions were not included at all.

Notice that the Sugar Hill Gang and M.C. Hammer (Old School and New Old School, respectively) have fewer than the others, which are New School. They are listed in order from the most occurrences of two-syllable words (taking into account the total number of words)

<table>
<thead>
<tr>
<th>Band Name</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Enemy (528)</td>
<td>.96</td>
<td>14</td>
<td>3</td>
<td>--</td>
</tr>
<tr>
<td>Queen Latifah and Monie Love (571)</td>
<td>98</td>
<td>19</td>
<td>9</td>
<td>1 (6 syll.)</td>
</tr>
<tr>
<td>Nikki D (476)</td>
<td>69</td>
<td>3</td>
<td>2</td>
<td>--</td>
</tr>
<tr>
<td>Sugar Hill Gang (1107)</td>
<td>106</td>
<td>13</td>
<td>8</td>
<td>1 (5 syll.)</td>
</tr>
<tr>
<td>M.C. Hammer (466)</td>
<td>35</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
APPENDIX B:

Rhythm and Intonational Analyses of the Five Songs
Rhythm and Intonational Analyses
of the Five Songs

Following are the lyrics for the five songs I considered. The rhythmical patterns are given above the words. The intonational contours are superimposed on top of the words in red. These are as accurate as I was able to determine; in some cases the contours are not separated from one another because I was not able to decide the exact interpretation. The blue brackets represent boundaries between IPs; they are placed where I was positive a boundary existed. In places that were ambiguous but where there was potentially a boundary, I put a break in the red contour line, and inserted no brackets. Contours in which I could determine no distinctions for phrasing, such as regularly fluctuating contours that were probably the result of musical structure, I represented with no breaks.

KEY:

( ) phonological phrase boundary (Nespor and Vogel (1986))

--- intonational contour line

[ ] intonational phrase boundary

[ ] musical rhythm
Rapper's Delight
by The Sugar Hill Gang

(Now) (what you hear) (is) (not a test) (I'm rappin') (to the beat)

(And me) (the groove) (and my friends) (are gonna try) (to move your feet)

(You see) (I am) (Wonder Mic) (and I) (like) (to say hello)

(To the black) (to the white) (the red) (and the brown) (the purple) (and yellow)

(But first) (I gotta) (bang bang a-boogie to the boogie)

(Say) (up jump) (the boogie) (to the bang bang boogie)

(Let's rock!) (you) (don't stop)

(Rock) (the rhythm) (that'll make) (your body rock)

(Well) (so far) you've heard) (my voice) (but I) (brought) (two friends along)

(And next) (on the mic) (is) (my man Hank) (he come on) (Hank) (sing) (that song)

(Check it out!)

(I'm) (the C-A Ace) (and the G-V Eight) (and the rest) (is E-Ly-F)

(See) (I go) (by the code) (of the doctor) (of the mix)

(these reasons) (I'll tell you why)

- vi -
Sugar Hill Gang (cont'd)

(Y'zsee) (I'm) [six foot one] (and I'm tone) (of fun)

[end I] (dress) (to a tee)

(You see) (I) [got] [more clothes] (than Muhammad Ali)

(and I) (dress) (so viciously)

(I) [got] (body guards) [I] [got] [two big ears]

(That) (definitely ain't) (the weak)

[I] [got] [a Lincoln Continental] [and a] [there, new] [cadillac]

[See after school] [(I) (take) (a dip) (in the pool)]

[which is] [really on the wall]

[(I) [got] [a color TV]] [(so I] (can see) [(the] [Nicks] [(play)] [(basketball)]

[(Hear me talkin') ('bout checkbook) [(credit cards) [(more money]]

[(than a sucker) (could ever spend)]

[(But I] [(wouldn't give) [(a sucker)] [(or a cent) [(from the sucker]]

[not a drop] (til I] [(made it again)]

[(Everybody) (go) [(hotel)] [(metro)] [(what ya] [(gonna do) [(today?)] [(say what)]

[(Gus I] [(gon' get) [(a fine girl)] [(gonna get) [(some smack)]

- vii -
Suq~r
Hill
G~nq
(Everybody) (go) (hotel) (motel) (Holiday Inn)

(You see) (if your girl) (starts actin' up) (then you) (take) (her friend)

(A-Master Gee) (my name) (is) (you) (so what you gonna do?)

(Well it's) (man an' man an' man an' man)

(The beat) (don't stop-a) (till the break) (o' dawn)

(I) (said) (a M-A-S) (a T-E-R) (a C) (with a double E)

(I) (said) (I) (go) (by the unforgettable name) (of the manager a-Master Gee)

(Well) (my name) (is) (known) (all over the world)

(by all the foxes) (ladies) (and the pretty girls)

(I'm goin' down) (in history) (as the baddest rapper) (there ever could be)

(Now you're feelin') (the highs) and you feelin') (the lows)

(The beat) (starts gettin') (into your toes)

(You) (start pumpin') (your fingers) (and stompin') (your feet)

(And movin') (your body) (while you're sittin') (in your seat)
(And then) [DAMN!] [(you) start (doin') (the freak)]

(I said) [JAM!] [(right guata your seat)]

(Then you) [throw] [(your hands) (high) (in the air)]

('You're rockin') [to the beat] [(and shakin' here)]

('You're rockin') [to the beat] [(without a care)]

(With the sure shot MCs) [(for the affair)]

(Now I'm) [not as tall] [(as the rest) (of the gang)]

(But I) [rap] [(to the beat)] [(just the same)]

((got) [(a little face) (and a pair) (o' brown eye')]

(All I'm here to do] [(ladies)] [(is hypnotize)]

(Singin') [on an' an' on an' on an' on] 

(The beat) [(don't stop a) (till the break)] [(o' dawn)]

(Singin') [on an' an' on an' on on an' on]

(Like a hop) [dibby trop de bop de bop dibby dibby]

Bop de bop bop) [(you) (don't dare stop)]

(Come alive) [(y'all)] [(a-give me) (what you got)]
(I) (guess) (by now) (you'll) (can) (take) (a bunch) 

(And find) (that I) (am) (the baby) (of the bunch)

[But that's okay] [(I) (still) (keep) (in stride)]

[Cuz all I'm here (to do)] (is just wiggle) (your behind)

[Singin'] (em' an' em' an' em' an' em' an']

(The beat) (don't stop-a) (till the break) (of dawn)

[Singin'] (em' an' em' an' em' an' em')

[Right (rock)] (y'all) (good) (on the floor)

[I'm gonna freak you) (there) (I'm gonna freak you) (there)

[I'm gonna move you) (wanna this atmosphere)

[Cuz I'm one) (of a kind) [(and) I'll shock (your mind)]

[I'll put] (the dig) (dig) (diggers) (in your behind)

[I said) (a-one) (two) (three) (four)

[Come (on)] (girls) (get) (on the floor)

[Come alive] (y'all) (give me) (what) (you got)

[Cuz I'm guaranteed (to make you) (rock)]
(I said) (a one) (two) (three) (four)
(Tell me) Wonder Mie! (what are) (you) (waitin' for?)
(Said) (a hip) (hop) (de nibby) (to the nibby) (de hip hip a hop)
((and you) (don't stop a-rockin'))
((To the) (bang bang de boogie) ((ee yu' jump the boogie))
((to the) (rhythm) (of the boogedy bee))
(A-skiddily de bop) (we rock) (a-Scrooby Doo)
((Guess what)) (America) (we) (love you)
((Cuz ya) (rock) (and a roll) (with a so much soul))
((You) (can rock me) (a hundred and one years old))
((I) (don't mean) (to preg) (I) (don't mean) (to toast))
((But we) (like) (not butter) (on a breakfast toast))
((Rock it up)) (a-baby bubba)
((Baby bubba) (to the boogedy bang bang de boogie))
((To the beat) (beat) (is)) (so unique)
(Got my) (every body) (and / dance) (to the beat)

Ever went (over a friend's house) (to eat)

(and the food) (just ain't) (no good)

(I mean) (the macaroni's) (soggy) (the peas) (are mushed)

(and the chicken) (tastes) (like wood)

[A-s0 you] (try) (to play it off) (like you) (think) (you) (can)

(by a-sayin') (that you're full)

[And then] (your friend) (saw) (mama) (he's just been) (like)

[he] (ain't finished) (uh-uh) (that's bull)

[A-so your heart] (starts / pumpin') (and you) (think) (of a lie)

[And you] (say) (that you) (already ate)

[And your friend] (saw) (man) (there's plenty) (of food)

[so he] (piles) (some more) (on your plate)

[While the stinky food's streamin') (your mind) (starts to dreamin')

[of the moment] (it's time) (to leave)

[And then you] (look) (at your plate) (and your chicken's) (slowly rotting)
(into something) (that looks) (like cheese)

(What you) (say) (that’s It) (I) (got) (to leave) (this place)

(I) (don’t care) (what these people) (think)

(I’m just sittin’ here) (makin’ myself) (nauseous)

(with this ugly food) (that stinks)

(Well) (so you) (Bust-a) (out the door) (while it’s still closed)

(still sick) (from the food) (you) (ate)

(And then you) (run) (to the store) (for quick relief)

(from a bottle) (of maalox)

(And then you) (call) (your friend) (a-two weeks later)

(to see) (how he) (has been)

(And he) (says) (I) (understand) (about the food)

(baby bubba) (but we’re still friends)

Well a-hip hop....(fade out)
Louder Than a Bomb

by Public Enemy

(This style) (seems wild)

(Wait) (before you) (treat me) (like a stepchild)

(Let me) (tell you) (why they) (got me) (on file)

("Cause I) (give you) (what you) (lack)

(Some right) (and exact)

(Our status) (is) (the saddest)

(So I) (care) (where you) (at) (black)

(And at home) (I) (got) (a call) (from FBI)

(The FBI) (was tappin' my telephone)

(I) (never live alone)

(I) (never walk alone)

(My peace's always ready) (and they're waitin') (in my zone)

(Although I) (live) (the life) (that of a resident)

(But I) (be knowin') (the scheme) (that of the president)

(Tappin') (my phone) (whose crews) (abused)

(I) (stand accused) (of doing harm)
(whisper) ('Cause I'm louder) (than a bomb)

[Full grown] (consider me) (stone)

[Once again] (and)

I (say it) (for you) (to know)

[The troop is always ready] ([I] (yell) ('geronimo')

[Your CIA] (you see) ([I] (ain't ridin')

[Both King] [(and A)] [(they) (got ridda' both)]

[A story] [(uncold)] [(true) (but unknown)]

[Professor Griff] (knows...)

[(Ya)] ([I] (ain't) (milk toast)] [(MAD)]

[And not] (the braggin') (or boastin') (and plus)

[(It) (ain't) (a secret)] (why they're tappin') (my phone) [(although)

[I] (can't keep it) (a secret)]
Public Enemy (cont’d)

['So I (decided) (to kick it) ' [Yep]

(And yes) (it) (weighs) (a ton)

(I) (say it) (once again)

[I'm called) (the enemy) [(I'll never be) (a friend)]

(Of those) (with closed minds) (I knew) (that I'm rapid)

(The way) (that I) (rap it)

(Is makin' 'em) (rap it) ('yeah)

(Never servin' 'em) (well) ('cause I'm) (an unTom)

(It's) (no secret) at all]

(Cause I'm louder) (than a bomb)

(Cold) (holdin') (the road)

(The burden) (breakin') (the mold)

(I) (ain't) (lyin') (denyin') (because they're checkin') (my pedigree)

(Am) (I) (buggin') ('cause they're buggin') (my phone) (for information)

(No tellin') (who's sellin' out) (power) (buildin') (the nation) (so)
Public Enemy (cont'd)

([Joinin'] (the cut)] [the point blank target]

([Every brother's inside] [so least not you] [forget] [no])

([Takin'] (the blame) [is not] [a waste] [here] [taste])

([A bit] (of the song) [so you] [can never be wrong])

([Just a bit] (of advice) ('cause we') [be pavin'] (the price)

(['Cause every brother man's life)

(is) ([like swaggin'] (the nice) (right)

([Here it] (in) [once again] [this] (is)

([The brother] (to brother)

([The Terminator] (the cutter)

([Get it] [straight] (in '88) [an' I'll troop it] (to demonstrate)

([The posse] (always ready) [98 at 90]

([My posse] (come quick) ([because my posse] (got velocity)

([Tappin'] (my phone) [never leave me] (alone)

([I'm] (even lethal) (when I'm unarmed)
(whisper) 'Cause I'm louder (than a bomb)

('Cause the B (is for dangerous)

(You) can come (and get some) (of this)

(I) teach and speak

(So when it's spoke) (it's) no joke

(The voice) (of choice)

(The place) (shakes) (with bass)

(Called) one (for the treble)

(The rhythm) (is the rebel)

(Here's) (a funky rhyme) (that they're rappin' on)

(Just thinkin') (I'm breakin') (the beats) (I'm rappin' on)

(All they tell us) (is lies)

(And when I say it) (they get alarmed)

('Cause I'm louder (than a bomb)
Ladies First

by Queen Latifah and Monie Love

(Queen)

(The ladies) (will) (kick it) (the) (rhythm) (is) (wicked)

(Those) (that) (don't) (know) (how) (to be) (pros) (get) (evicted)

(A woman) (could) (bare you) (break you) (take you)

(Now it's) (time) (to) (bomb) (can) (you) (relate) (to)

(A sister) (deep enough) (to) (make you) (holler) (and) (stream)

(spoken)

(Hey yo) (let me) (take it) (from here) (Queen)

(Monie)

(Excuse me) (but) (I) (think) (I'm) (about) (due)

(To get into) (precisely what) (I) (am) (about) (to do)

(I'm conversatin') (to) (the) (folks) (who) (have) (no/whatsoever/what)

(Sta listen) (very) (carefully) (as I) (break it) (down) (for) (you)

(Merrily) (merrily) (merrily) (merrily)

(Ha ha) (happy) (enjoyed)

(Pleased) (with all the beats) (and) (rhymes) (my) (sisters) (have) (employed)

(Slick an' smooth) (gain' down) (the sound) (totally a yes)
Queen Latifah and Monie Love (cont'd)

[Let me]  [state] [the position]

[Ladies first] [yes] [yes]

[Believer] [when I] (say) (bein') (a woman) is great (you see)

[I] (know) (that all the fellows) (out the world) [agree] (with me)

[Not to be a one] [but to be a] (with one)

[Cuz when it's time] (for lovin') [it's] (the woman) [that gets] (some)

[Strong] [stepin'] [struttin'] [movin'] [en] [rhymin'] [cuttin']

[And not forgettin'] (we) (are) (the ones) (that give birth) (to the new generation) (of prophets)

[Cuz it's] [ladies first]

(Queen)

[If] (break into) (a lyrical freestyle)

[Grab] (the mic) [(look) (at the crowd)] (and see smiles)

[See] (they) (see) (a woman) (standin') (up on her own two)

[Slumpin'] [sloppin'] [(that's somethin') (I) won't do]

- xx -
Queen Latifah and
Monie Love (cont'd)

([Some] think) (that we) (can't flow)

([Stereotypes] [they] [got] to get)

([I'm a mess around] (and flip) (the scene) (into reverse))

([With what]) (with a little touch) (of ladies first)

([Who] (said that the ladies) couldn't make it) (you) (must be blind)

([If you don't believe] (well here)] (listen to) (this rhyme)

([Ladies first] (have) (no time) to rehearse)

([I'm divine] (in my mind) (expansion) (throughout the universe)

([A female rapper] with a message] (to send)

([The Queen Latifah] is) (a perfect specimen)

([My sister] [can I] (get some)

([Sure]) ([Monie Love] [grab] (the mic] (and get numb)

([Monie] [Praise me not] for bein' (simply what) (I) (am)

([Born] (in El Horrendo) (and South American)
Queen Latifah and Monie Love (cont'd)

[You] (dig) (exactly where) (I'm comin' from)

[You] (want) (righteous rhyme) (an' I'm a give you) (some)

[To enable you] (to aid yourself) [and get paid]

[And the material] (that has) (no meaning) (I wish) (to play)

[Paw me] (every bit) (of your attention)

[Like mother] [like daughter]

[I] (would also like) (to mention)

[I] (wish) (for you) (to bring me) (to the) (bring me) (to the rhythm)

(Of which) (is now systematically given)

[Desperately stressin'] (I'm) (the daughter) (of the sister) (who's) (the

mother) (of the brother) (who's) (the brother)

(of another) [(plus one more)]

[(All four) (have) (a job) (to do) (we) ( ain' it)]

[Respect] (due) (to the mother) (who's) (the rest) (of it)

[(And next stop) is me] [(the) (Q-N-I-E-L-O-V-E)]

[(And I'm next) (cuz I'm) (L-A-D-I-E-R)]
Queen Latifah and Monie Love (cont'd)

(Queen) (Contactin') (in fact) (Style) (it) (gets harder)

(Coolin') (on a scene) (with my European partner)

(Layin' down) (track) (after track)

(Waitin') for the climax

(When I) (get there) (that's when I) (tax)

(The next man) (or the next woman)

(it) (doesn't make) (a difference) (keep) (the competition)

(Comin') (and I'll recite) (my chapter and verse)

(The title) (of this recital) (is)

(Ladies first)
(spoken) I told you homeboy
(U) (can't touch this)

(spoken) Yeah, that's how we livin' and you know
(U) (can't touch this)

(spoken) Look in my eyes, man
(U) (can't touch this)

(spoken) Here let me bust them funky lyrics
(U) (can't touch this)
(spoken) Yo, I told you
(U) (can't touch this)

(spooken) Why you standin' there, man?
(U) (can't touch this)

(spooken) Yo, found the bill, school's in sucker!
(U) (can't touch this)
M.C. Hammer (cont'd)

(Give' me) (a song or rhythm)

(Makin' 'em strut) (that's what) (I'm givin' 'em)

(Now) (they) (know)

(They're talkin') ('bout the Hammer) (when they're talkin') ('bout a snow)

(There's) (that) (and tight)

(Singers) (are struttin') (so pass) (to the white boy)

(Tape) (to learn)

(Ends) (are gonna) (and sight) (is) (to burn) (the charts)

(Either work hard) (or you) (might as well quit)

(spoken) That's word, because you know

(U) (can't touch this)

(U) (can't touch this)

(Break it down)

(Stop) (Hammer time)
M.C. Hammer (cont’d)

(Goin’) with the (low) (it) (is said)

(If you) (can’t groove) (to this) (then you) (prob’ly are dead)

(So wave) (your hands) (in the air)

(Bust) (a few moves) (run) (your fingers) (through your hair)

(This) (is it) (for a

(Dance) (to this) (and you’re gonna get

(Move) (slide) (your hump)

(Just for a minute) (let’s all) (do) (the bump)

Bump, bump, bump, yeah
(U) (can’t touch this)

(spea) Look, man
(U) (can’t touch this)

Ring the bell, school’s back in
(Break it down)
(Stop) (Hammer time)

(Every time you) (see me) (that Hammer’s) (just no type)
(I’m) (dope) (on the floor) (and magic) (on the mic)

- xxvii -
(Now why would I ever stop doin' this)

([With others] makin' records) (that just don't hit)

[I've] (toured) (around the world) (from London) (to the Bay)

(It's Hammer) (Go) (Hammer) (M.C. Hammer) (Yo) (Hammer)

(And the rest) (can go) (and play)

(U) (can't touch this)

(speakers) We outta here
Daddy's Little Girl
by Nikki D

["Daddy's little girl")

([Not the girl) (that daddy) (knew)]

([Daddy) (never had) (a clue)

[Of what his little girl) (would do]

([A Asset-a sweater open up wid ya]

([A pocket full) (of dreams) (for my love) (will get ya]

([I) (never concentrated) (on the fact) (that I'm bluff]

([Scheme) (for scheme] [and things) (that will lead) (to a pipe dream)

([Picture it)] [yes] [I'm) (daddy's little girl]

([I] (never asked) (for nothin') (how it's) (a string) (of pearls)

([My chances) (are thin) (then I) (went) (with the substance]

([A princess] (with the sound) (but my sweetness) (is) (root of brown)

([I) (never fought) (the feelin') (that I) (had to be wild]

([Cuz in my mind) [I) (was) (a mature child]

([But I) (couldn't hurt daddy)] [I) (played) (the role]
(But on a tip) (I was aanganist soul)

(But I’m) (daddy’s little girl)

(Daddy) (always tucked me) (in bed) (and kissed me) (goodnight)

(Said) (Nikki) (sleep tight) (then turned off) (the light)

(And when he) (goes away) (on a business trip)

[I] (flip) (lose) (my grip)

(Party time)

(Tell) (the girls) (split) (the tootie)

[One] (go pick up) (the booze)

[My other half] (move) (your a**) (and go spread) (the news)

(The party) (went on) (lasted) (all night long)

- xxx -
[(Song)] (after song) [(until the break) (of dawn)]

[Then watch] (some) (messy scene) (in the morn)

[(My body) (got) (a warm)] [(hmm)] [(from gettin' freaky) (with Vaughn)]

[(Sexin') (like crazy)] [(my body) (amazed me)]

[(By bekin') (a chance) (with a man)]

[(That's it)] [(phase me)]

[(A night) (so magic)] [(a bit unexpected)]

[(Before I) (made love) (I) (should've been protected)]

[(Cuz now I'm) (in a jam) (with this Careless punk)]

[(And in about three months)] [(my stomach) (will be plump)]

[(Trouble)] [(yes)] [(I'm) (in the hot seat) (now)]

[(Tell) (my pop)] [(No way) (no how)]

[(It'll break) (his heart)] [(break) (his whole world)]

[(To have) (to grow up quick)]

[(Daddy's little girl)]

(sung) (What Daddy) (don't know) (won't hurt him)
(But I'm) (daddy's little girl)

(Here we) (go)

(Neighbors) (ask her) (to trust me) [(yeah) (daddy) loves me]

(Cuz I) (can fill it) (in his arms) [(strong) (when he) (hugs me)]

(But then comes) (a time) (when his angel) (must spread) (her wings)

(But I'm) (a woman) (now) [(so let's) (keep it) (this way)]

(Daddy's little girl)

(What daddy) (don't know) (won't hurt him)

(Daddy's little girl)
References


