The Intonational Phonology of Spoken Word Poetry*

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Abstract

Most linguistic research on intonational phonology and poetry has been focused on traditional poetic intonation (Byers 1980, Barney 1999). This thesis expands this area of study to include the sub-genre of spoken word poetry. Spoken word is a performative oral art form that encourages imaginative use of language and intonation. A trend called "poet voice" has developed out of this genre. There is a relatively small amount of research which is focused on rhetoric in spoken word (Stoudamire). Using the approaches of Byers (1980), and Barney (1999) on predicting how poetry will sound, I describe unique intonational features in one spoken word poem by Harry Baker (2014). I highlight the drawbacks and benefits of the prediction method as it pertains to transcription and pitch. I also offer insight about how the linguistic study of spoken word poetry can develop in the future.

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1 Introduction

In this thesis, I examine intonational phonology in spoken word poetry in English. I will address the following question: what makes spoken word recognizable? Poets have a distinct way of speaking when they perform their work: you know it when you hear it. What is it that makes this poet voice distinct from conversational English? What are the unique phonological, or perhaps syntactic, features of spoken word? I answer these questions through the applied study of intonational phonology. Prudence P. Byers writes that “What distinguishes a poem from other kinds of language is that it foregrounds language itself, rather than the various meaning language conveys. Sound is consequentially more important in poetry than it is elsewhere…” (Byers 1980: 3). Language is the tool of poets. They use the rules and restrictions of English as a musician uses an instrument. My hypothesis is that the poet diverts from what is expected in typical English intonational structures by making unusual intonational and syntactic decisions that subvert the expectations of the listener and create distinct speech that is recognizable as spoken word.

To begin, I provide a brief overview of spoken word poetry, followed by a definition of intonational phonology according to Robert Ladd (Ladd 2008). In §2, I provide an overview of the theories that help to shape my hypothesis, including explanations of Byers(1980), and of Barney (1999). The data for this investigation comes from a poem called ‘59’ by spoken word artist Harry Baker. Byers (1980) suggests that the intonation of poetry is predictable based on pitch and syntax. How can Byers’ methods of predicting poetry using pitch apply to Baker? Her method and work is centered around traditional poetic performance. Will her methods work to analyze spoken word? I will present how I approached analyzing this work according to Byers’ method in §3, and my results in §4, followed by a discussion in §5. The focal points of study regarding this poem are its tone-unit boundaries, or how Baker divides his phrases according to pitch contour and pausing, and the pitch contours themselves. I follow this section with suggestions for future research regarding Baker’s syntactic approach to performing, as well as for research regarding the genre of spoken word as a whole. Table
I is the transcription of the segment of the poem I studied, as it appears on the TEDxTalks website.

1. 59 wakes up on the wrong side of the bed.
2. Realizes all his hair is on one side of his head.
3. Takes just under a minute to work out that it’s because of the way he slept.
4. He finds some clothes and gets dressed.
5. He can’t help but look in the mirror and be subtly impressed
6. How he looks rough around the edges and yet casually messed.
7. And as he glances out the window, he sees the sight he gets blessed with of 60 from across the street.
8. Now 60 was beautiful.
9. With perfectly trimmed cuticles, dressed in something suitable.
10. Never rude or crude at all.
11. Unimprovable, right on time as usual, more on cue than a snooker ball but liked to play it super cool.

Table 1: ‘59' by Harry Baker

I think that it is important to note that I am not a poet; rather, I am an interested fan. My interest in this topic stems from years of listening to spoken word and noticing that many spoken word poets perform with a certain voice. I think that this research is important and worth doing because I want to develop an understanding of how linguists can better understand speech in performance settings. There has been some work on speech and performance by anthropologists (Seizer 1996). There has also been work done by linguists on intonation (Ladd 2008, Crystal 1969, Cruttenden 1986, and others), and intonation and poetics (Byers 1979 & 1980, Barney 1999). However, little analytical work has been done on the intonational phonology of spoken word (Lumire 2013). Having a better linguistic understanding of spoken word builds on our understanding of poetics, performance speech, and intonational phonology. My hope is that this thesis can begin filling in this gap.

1.1 Spokenword, Slam Poetry, and Poet Voice

Spoken word is a form of expression and art that is delivered orally in performances and competitions. Although this term can apply to multiple oral traditions, such as musical
performance and story telling, I use the term here specifically to describe poetry. According to Poetry Slam Inc., the organization which is responsible for planning events for the International Coalition of Poetry Slams, spoken word poetry is “poetry that is meant to be heard” (2015). Spoken word poetry, or slam poetry, stems from a long oral tradition and has evolved largely from hip-hop and the Black Arts Movement (Somers-Willet & Stoudamire 2012). It is important to note the relationship between ‘spoken word poetry’ and ‘slam poetry’. Slam poetry does not exist as a separate genre or style of poetry from spoken word, rather, slam poetry is spoken word performed in competitions called poetry slams. Because spoken word poetry has largely been popularized by the Slam movement, begun in 1984 by Marc Smith (Olson, 2016), the two terms are often used synonymously.

Poetry slams are competitions where poets perform their spoken word and are given ratings by judges. The difference between poetry slams and other performances is not only the fact that slams are competitions, but also that they are designed in a way that allow and encourages interaction between the poet and the audience. Emcees, or hosts, try their best to get the audience excited and involved by encouraging them to give both the poets and the judges loud feedback. The general conventions for feedback at slams include snapping or cheering to indicate approval, and booing the judges when a score is given that the audience does not agree with (Poetry Slam Inc., 2015). Another difference is that at most slams, poets are not allowed to read their work off of a piece of paper. It must be memorized. While performing from memory is common in many spoken word venues, not doing so can be grounds for disqualification at slams. This means that the work a poet presents at a slam is very rehearsed. This is also true of formal performances in non-competition settings. Not only must a poet remember the words that they want to say, but they have also practiced the delivery, and perfected their rhythm and intonation. This means that the poem will sound roughly the same each time the poet performs it. Of course, there is bound to be a small amount of variation. However, the intention of the poet is usually to perform how they rehearsed. Poets are judged on their delivery, audience reception, and ability to perform
within the time limit. Points can be taken off if a poet goes over the allotted amount of time. Judges at slams could be anyone from seasoned poets to random audience members. Much of the culture around spoken word is centered around these competitions. In my experience, the primary purpose of these events is to foster a supportive community among the poets and fans. Because slam poetry does not reflect a different style of performance poetry from spoken word, and because the data in this thesis is from a performance that is not a poetry slam, I use the term ‘spoken word’ to describe my subject of investigation in this thesis.

There are many opinions in the listener and poet communities about how spoken word should be performed. The spoken word and slam communities emphasize the importance of individuality in performance. Despite this trend, spoken word does not have to follow a particular pattern. Spoken word is an art form that is used as a tool for self expression and being heard. One poet, Guante, even says that the trends in spoken word intonation, or what he calls, “poet voice,” poses a problem for the spoken word community because it distracts audiences, which are growing in the digital age. The controversies around this trend speak to the fact that there is a voice that is present and discernible. My thesis is concerned with identifying what is behind “poet voice”.

Figure 1: Harry Baker Performing in 2014

Figure 2: Brooklyn Poetry Slam Finals 4/24/17

Figure 3: Audience at Brooklyn Poetry Slam Finals 4/24/17
1.2 Linguistic Research on Spoken Word

The scholarly study of spoken word has largely been confined to literary study (Lemire, 2013). However, Shawnkeisha Stoudamire has done some research on spoken word and the history of black oral history as it pertains to rhetoric and stylistics (Stoudamire, 2012).

In her 2012 article, Stoudamire discusses the rhetoric of slam poetry and the relationship between black oral history and spoken word poetry. She discusses these connections through the linguistic framework of "signifying and tonal semantics" (2012: 59), and through the comparison of three bodies of work: "The Wonderful Tar Baby", a Black English Folktale, "Beautiful Black Man" (Nikki Giovanni 1968), and "Baby Brother" by Christina Jackson. Stoudamire defines signifying as repetition and "indirect encoded messages" (2012: 59). She uses Geneva Smitherman's definition of tonal semantics: "tonal semantics refers to the use of voice rhythm and vocal inflection to convey meaning in black communication" (Smitherman 1977: 134). In addition to tonal semantics, Stoudamire also briefly focuses on intonational phonology in her study of how meaning is conveyed in slam poetry and in the black oral tradition. She again uses Smitherman's definition: "intonational contouring is 'the specific use of stress and pitch in pronouncing words in the black style'" (Stoudamire 2012: 60, & Smitherman 1977: 145).

Stoudamire uses examples from the texts mentioned above to discuss the use of signifying. Each artist cleverly uses subtle references to convey a specific meaning to their audiences. In her spoken word example, taken from the poem, "Baby Brother" by Christina Jackson, Stoudamire points the reader's attention to lines 1-5 of the poem (2012: 60):

(1) 1. ...live with conviction

2. and you will lessen your chances of

3. having an unnecessary collision.

4. I urge you to be the change, brother.

5. There are enough of you living in prison.
The encoded message that Jackson conveys, as described by Stoudamire is that Jackson is criticizing society and the American prison system. “It is a known fact that there are more black men in the prison system than any other ethnicity” (2012: 60). Line 5 draws the listener’s attention to Jackson’s warning to her brother that, as a black man, the odds are against him, without explicitly speaking about the United States’ long history of oppression of people of color, or the injustices in our prison system. Jackson’s hope for her brother is for him “to be a better man than society expects him to be” (2012: 61).

In addition to delivering her message by signifying implicit meanings, Stoudamire argues that Jackson also uses inflections and intonational contouring to communicate this meaning. She uses speech rate to articulate the importance of a particular line. Slowing down after using an accelerated speech rate will bring the listener’s attention to the slower phrase. Stoudamire uses Lines 6-14 of “Baby Brother” as an example (2012: 61):

(2) 6. I know you’ve seen it done,
   7. but it just isn’t right.
   8. Please don’t be one of those brothers
   9. who dwells on the black man’s plight
  10. and decides to live in the dark
  11. because you are too lazy to turn on the light.
  12. I know that you have seen that done,
  13. but what I am telling you is
  14. that doesn’t make it right.

According to Stoudamire, who listened to the poem performed live by Jackson (Stoudamire 2012), Jackson uses a slower speech rate in Lines 13 and 14 than she does in Lines 6 and 7. Lines 13-14 are a repetition of what is said in 6-7. By saying them slower and “choppier” (2012: 61), Jackson brings attention to the message of the poem, which is that she wants her brother to fight to be better than the societal expectations.
Stoudamire provides useful insight into the history of slam as it pertains to black oral performance. She also lays some of the groundwork for the scholarly linguistic study of spoken word. The focus of my research is connected to the second stylistic tool that Stoudamire examines: tonal semantics. Although I do not discuss the semantic significance of Baker’s intonation in ‘59’, I investigate how intonation, particularly pitch and pausing, function in this poem.

1.3 Intonational Phonology

Intonation is defined by Dr. Robert Ladd as “the use of suprasegmental features to convey ‘post-lexical’ or sentence level pragmatic meanings in a linguistically structured way” (2008: 4). ‘Suprasegmental features’ include pitch (fundamental frequency or $F_0$), intensity, and duration. The focus in this thesis is on pitch and pause duration. These are the key features for understanding the difference between linguistic patterns in poet voice and in conversational English. Poets use these features in order to create emphasis and draw a listener’s attention to the important points in their poetry. Studying suprasegmental features, we can relate patterns in speech to the meanings we convey. This is done at the ‘post-lexical’ level, which means that the focus is on how intonation affects meaning at the phrase level rather than the word (lexical) level (Ladd 2008: 6). Intonation at the lexical level does not provide enough information about the meaning of the work as a whole. This is why it is important to focus attention on the phrase level.

By “linguistically structured,” Ladd means that intonational features are organized by category and exclude paralinguistic features. These include “continuously variable physical parameters” such as tempo and loudness.
2 Theory

2.1 The Byers Approach

Prudence P. Byers writes in ‘Intonation Prediction and the Sound of Poetry’ (1980) about predicting the sound of poetry based on its syntax. This method is interesting to use as a lens for studying spoken word because spoken word often does not follow traditional syntactic patterns or intonational patterns. Byers claims that intonational phrases, or phrases that follow a pitch contour, often go ignored in favor of metrical theory, with particular focus on how metrical boundaries (the boundary of an intonational phrase) aligns with traditional poetic units. Byers is also interested in these boundaries; however, she provides an additional focus on the intonational phrases, or tone-units themselves. When she says intonational phrase, she is referring to the phrases that make up “the intonational shape or movement of the poem” and their interactions with each other (Byers 1980: 3). Using Table 2 (Wallace Stevens’s “Esthétique du Mal”) as an example, Byers chooses to focus on the phrases included in lines 1 and 2. According to her, somebody who studies metrical theory would be interested in where the line is destined to end by the poet (i.e. between lines 1 and 2). Byers proposes a system for predicting intonational rules in poetry based on “tone-unit sequence, or the relationship between tone-units in a series” (Byers 1980: 4). Tone-units are used synonymously with intonational phrases. Byers identifies tone-unit boundaries as anywhere punctuation occurs, or syntactic junctures where there is no punctuation. She also briefly discusses major units, which is a collection of tone-units that follow a pattern of alternating high and low pitches, and is bordered by a long pause. This will be discussed further in §3. The suggested method for predicting intonation in poetry is applied to written text. The goal is to detect indicators in the text that align with intonational traits, such as tone-unit boundaries and high or low pitch, and use those markers to predict where the intonational traits will occur.
1. The greatest poverty
2. is not to live /
3. in a physical world,
4. to feel one’s desire /
5. is too difficult to tell from despair.

Table 2: From Byers Page 6 (1980)

Byers discovered in the process of observing prose and poetry performances that there is an intonational pattern in English that typically goes as follows:

“The first onset in the initial unit in the utterance is unusually high. Then come one or two lower ones. Then comes another, higher than the previous one but not as high as the first, and again one or two lower ones. And then comes an unusually long pause.” (Byers 1980: 4)

The onset is defined as “the first prominent syllable in the unit” (Byers 1980, 4 & Crystal 1969). There is of course some variation; however, this is what Byers argues is emblematic of a major unit in English. The pattern resets with the next tone-unit after the pause. Overall, after every high onset in a tone-unit, the following should be lower.

However, in poetry performances, poets tend to stray from this pattern. A poet might follow a different pattern from stanza to stanza, or intonational phrase to intonational phrase. For example, in Table 5, lines 10 and 11 both have high onsets, as do lines 13, 14, and 15. There are several possible reasons for these high onsets, which Byers lays out on page 7. The letters that Byers includes in lines with a high onset represent the predicted reason for a higher pitch. The reasons for high onset and their corresponding letters are explained in the following table:
Letter | Indicator
A | The initial onset
B | An independent clause
C | A clause that begins with an adverbial
D | Items in a series (the last item will start higher than the others)
E | Two units which are closely connected are interrupted. (i.e. subject and predicate interrupted by a postmodifier) Whatever follows the interrupting unit will be high
F | A text which has “more than one set of parallel structures” (Byers 1980, 7)
G | An intensifier, or a word expressing emphasis or contrast

Table 3: Byers High Onset Indicators (1980, 7)

Byers identifies deviance from typical English patterns as a unique trait of poetry. Byers explains this tendency for deviation from the pattern by pointing out that poetry encourages the reader or listener to disrupt their expectations. Often the point is to make the reader or listener think differently about the world that surrounds them. Sometimes these disruptions are even intentionally linked to the content of the poem. Byers uses an example from Wordsworth’s “She Dwelt among the Untrodden Ways”. In the beginning of the poem, the pattern is typical; however, it changes after the subject matter shifts to death. This is demonstrated in Tables 4 and 5. Table 4 represents the beginning of the poem and Table 5 represents the shift. (Byers, 1980).

1. High (A) She dwelt among the untrodden ways /
2. Low Beside the springs of Dove, /
3. High (E) A Maid whom there were none to praise /
4. Low And very few to love: /
5. High (A) A violet by a mossy stone /
6. Low Half hidden from the eye! /
7. High (E) –Fair as a star,
8. Low when only one /
9. Low Is shining in the sky. /

Table 4: From Byers Page 11 (a) (1980)
10. High (A) She lived unknown, 
11. High (B) and few could know /
12. Low When Lucy ceased to be: /
13. High (B) But she is in her grave, 
14. High (B) and, oh, /
15. High (C) The difference to me! /

Table 5: From Byers Page 11 (b) (1980)

Table 4 demonstrates the conventional pattern, a high pitch at the onset of each major unit, followed by one or two low pitches. Table 5, on the other hand, has multiple high pitches in a row. This is unusual and compliments the sudden shift in content from a discussion of the subject’s beauty to the tragedy of her death.

The foundation that Byers establishes in her work for investigating intonation in poetry is crucial to my research. She lays out a method which I use to transcribe Baker’s poem and analyze his use of pauses and pitch. I discuss my methods in greater detail in §3. Her strategy, however, is not perfect. Barney (1999) suggests that Byers indicators of poetic intonation can also be used in other types of performances. He offers his own insight as to which features are exclusive to poetry. I argue that Byers’ approach is not inclusive enough to account for spoken word poetry. I offer my additions to her method in §3

2.2 Barney

Tom Barney (1999) argues that Byers’ system for intonation prediction in poetry is incomplete. He argues that some of the traits that she identifies as unique indicators of poetic intonation also exist in other performance settings such as broadcasting. Barney attempts to “reexamine the notion of poetic intonation as a special variety of poetry” (Barney 1999, 156). He wants to define which of the traits that Byers observed are characteristic of poetry, rather than performance speech as a whole. To study the differences between poetry and other types of performance speech, Barney studies a poem written and performed by
Wendy Cope, and 60 seconds of a radio news broadcast on BBC Radio 3 (Barney 1999). He compares the two types of what he calls “nonsertaneous speech” (page 157), looking at each feature listed by Byers to examine which occur in both the poem and the broadcast, and which only occurs in the poem. I will use Barney’s findings to narrow Byers’s characteristics of poetic recitation even further to determine which of these features, if any, are characteristic of spoken word.

Barney defines his version of Byers’ “tone-units” as the “nucleus group” which begins at the “onset” \(^1\) or “initial accent,” and follows “a trajectory to a final accent, the nucleus, which is typically some kind of drawn-out pitch movement. The nucleus is also thought to be the defining pitch in a pitch contour. Barney defines a “tune” as a series of pitch accents that contain a pitch contour.

The traits that Byers claims as specific to poetic intonation are as follows: slow speech rate, short tone-units, more pauses, relatively equal-length units, low average pitch, narrow pitch range, simple falling melodies, and simple falling nuclei (Byers 1979. 373).

Barney neglects to include data alongside his observations on the speech rates of Cope’s poem and the BBC Radio 3 broadcast. He concludes that because there is not enough information to determine whether slow speech rate is a strictly poetic trait, it must belong to performance speech as a whole. Because he does not have enough information, I do not think that he can make a distinction either way (Barney 1999). As for tone-unit length, Barney notes that Cope’s tone-units are shorter and more uniform than the radio broadcast. After comparing the number of pauses in Cope’s poem and the radio broadcast, Barney also supports Byers’ claim that poetry contains more pauses. Both the poem and the radio broadcast exhibit a narrow pitch range for each speaker, and low pitch within that range. Therefore, low pitch and narrow range is a typical feature of general performance style, not just poetic performance. Falling Nuclei occur in both Cope’s poem and the radio broadcast; however, it is utilized more in the poem.

\(^1\)Byers also uses ‘onset’ to define the first syllable of a “tone-unit”.

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In addition to studying the claims made by Byers (1979), Barney (1999) argues for one more feature that he claims is characteristic of poetry: echoing. What he means by this is a tendency for the poet to repeat pitch patterns in order to emphasize caesuras and style.

Barney concludes by dividing the features laid out by Byers (1979) as follows:

<table>
<thead>
<tr>
<th>Performance features</th>
<th>Specifically poetic features</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>slow speech rate</td>
<td>short tone-units</td>
<td>simple falling melodies</td>
</tr>
<tr>
<td>low average pitch</td>
<td>more pauses</td>
<td>simple falling nuclei</td>
</tr>
<tr>
<td>narrow pitch range</td>
<td>relatively equal-length units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>echoes between pitch patterns</td>
<td></td>
</tr>
</tbody>
</table>

Table 6: From Barney page 166

3 Methodology

In the following section, I outline how I transcribed the poem’s line breaks using both Byers’ method and my own, as well as the methods I used to collect and analyze pitch data.

3.1 Transcriptions

An important factor of Byers’ investigation is her method of transcription. Her method is to outline tone-units and their boundaries, the pitch of the onset in each unit, as well as the reason for the pitch assignment. The poem used here to test Byers method is called “59” and is written and performed by a poet named Harry Baker. Baker is a UK poetry slam champion and has performed in many competitions world wide (Baker 2014). In her transcriptions, Byers makes tone-unit boundaries, which manifest as line breaks, according to syntactic boundaries and punctuation.

“The first [intonational rule] is that almost all marks of punctuation will be manifested as unit boundaries. Where there is no punctuation, the likelihood is this: if the segment contains a syntactic juncture, and if a boundary there will
not produce a one-stress unit, a boundary will probably occur at that juncture.”

(Byers 1980: 7)

Byers assigns units with high and low onsets after the boundaries have been determined. To do this, Byers uses the indicators for high onsets discussed in §2.1. If one of these indicators is present, a high onset is assigned, and the cause is noted. If none of them are present, the onset is marked low. Byers never explicitly states how she predicts a major unit boundary, or the boundary between what she describes as “sound sentences” (Byers 1980: 7); however, it can be inferred from her transcriptions (1980: 8, 9, 10, & 11) that she uses major punctuation (periods, colons, and semi-colons) to indicate the presence of a major unit boundary. These boundaries are represented by horizontal lines that divide the text. I transcribed ‘59’ according to these parameters. This transcript, and others described in this section can be found in §4.1.

I made two more transcriptions, also found in §4.1. I created Table 8 in order to visualize the pauses that Baker makes in ‘59’. The line breaks represent where I heard a pause. Byers does not take into account pauses taken in syntactically surprising places in a phrase, such as in the middle of a clause. It is common in spoken word, and particularly in ‘59’ for pauses to occur in syntactically unexpected places. Therefore, I have added an additional rule for determining tone unit boundaries, so as to not obscure the relevant pitch data that these pauses introduce. In addition to Byers’ rules, which I previously discussed in §2.1, a tone unit boundary occurs when a pause is present. The next tone-unit begins immediately following the pause. This is represented in Table 9. In this transcription, I use the pattern Byers describes for a major unit (a very high pitch followed by one or two lower ones, then a pause, then a higher pitch and again some lower ones, then an unusually long pause) to designate major units in Table 9.
3.2 Pitch in ‘59’

In order to answer the questions posed in my introduction, I studied the acoustic properties of speech from a performance by Harry Baker, a spoken word poet, and focused on pitch. A video performance of a poem was studied using Praat (Boersma & Weenink 2013), a software program that is useful for analyzing phonetic properties of speech. A recording of spoken word was selected that had clean enough audio to use in Praat, and not too much background noise. ‘59’, by Harry Baker, comes from a TedxTalk; the recording is fairly clean and free of noise from the audience. The video entitled “Grand Slam Champion | Harry Baker | TedxExeter” was published on YouTube in August of 2014 by user TedxTalks. I converted the video to an MP3 file using a free website called youtube2mp3.cc, and then used iTunes to convert to file to .wav. I then uploaded the video to Praat.

I again used Byers’ method for measuring pitch and pause duration. Byers argument rests on pitch measurements taken of the onset syllable of each tone-unit. I identified the poem’s tone-units as previously described. I paid close attention to punctuation and clause boundaries. The onset syllable was identified in each tone-unit by listening for the earliest syllable in the unit that had features of prominence as defined by Ladd (2008): prominence comes from pitch movement; a sudden shift in pitch in a tone-unit signals that the syllable has prominence. The earliest prominent syllable is the onset. Therefore, I listened to the poem and recorded the pitch of the onset syllables. I measured the pitch by highlighting the first vowel, which carries the most pitch, and used Praat’s measurement for the average pitch of the selection. The reason for selecting the vowel is to avoid skewing the data by incorporating phonemes that do not carry pitch (any voiceless phonemes such as /f/ or /s/). I also measured the duration of each pause in the poem. Overall, when measuring pause duration that occurred after a plosive, I started measuring after the burst, so the measurement for the pause duration includes the puff of air following the release. The data collected in this process is included in §4.2.
4 Data

4.1 Transcription Results

The following is my transcription of ‘59’ using Byers’ method of intonation prediction. The numbers represent line number, High and Low represent the predictions for the pitch of the onset. The letters in parenthesis represent Byers’ reasons for high pitch, which are discussed in Table 2.1. A forward slash (/) indicates a line break according to the TedxTalk transcription in Table 1.

1. High (A) 59 wakes up
2. Low On the wrong side of the bed./
3. High (A) Realizes all his hair is on one side of his head./
4. High (A) Take just under a minute
5. Low To work out
6. Low That it’s because of the way he slept./
7. High (A) He finds some clothes
8. Low And gets dressed./
9. High (A) He can’t help but look in the mirror
10. Low And be subtly impressed/
11. Low How he looks rough around the edges
12. High (G) And yet casually messed./
13. High (A) And as he glances out the window,
14. High (B) He sees the sight he gets blessed with of 60
15. Low from across the street./
16. High (A) Now 60 was beautiful./
17. High (A) With perfectly trimmed cuticles,
18. High (D) Dressed in something suitable./
19. High (A) Never rude or crude at all.
20. High (A) Unimprovable,
21. Low Right on time as usual,
22. High (D) More on cue than a snooker ball
23. Low But liked to play it super cool.

Table 7: Byers Approach to Baker
Major unit boundaries, as defined by Byers, occur after an unusually or markedly long pause. Listening to the poem, it is clear that the predictions made with respect to major unit boundaries in Table 7 do not reflect the pauses that Baker makes as he performs the poem. Table 8 represents where pauses occur in ‘59’, as performed by Baker (Baker 2014). At every line break there is a pause. The measurements for pause duration are represented in §4.2.

1. 59 wakes up
2. On the wrong side of the bed./
3. Realizes all his hair is on one side of his head./ Takes
4. Just under a minute
5. To work out that it’s because of the way that he slept./ He finds some clothes and gets dressed./
6. He can’t help but look in the mirror and be
7. Subtly impressed/ How he looks
8. Rough around the edges and yet
9. Casually messed./ And as he glances out the window, he sees the sight he gets blessed with of 60
10. From across the street./
11. Now 60
12. Was beautiful./
13. With perfectly trimmed cuticles, dressed in something suitable./ But never rude or crude at all./
14. Unimprovable, right on time as usual, more on cue than a snooker ball but liked to play it super cool./

Table 8: Crum Approach to Baker
The pauses that Baker makes are significant in their contribution to understanding how traditional intonational patterns occur, or don’t occur in spoken word. They also do not conform to the pattern detailed by Byers (1980). Therefore, I have incorporated my new rule regarding these pauses and tone-units (§3.1) into a transcription that otherwise follows Byers’ instructions for transcribing poetry (1980: 7). Lines 4, 10, 12, 14, 19, are examples of these pauses.

1. 59 wakes up
2. On the wrong side of the bed. /
3. Realizes all his hair is on the wrong side of his head. /
4. Takes
5. Just under a minute
6. To work out that it’s because of the way he slept. /
7. He finds some clothes
8. And gets dressed. /
9. He can’t help but look in the mirror
10. And be
11. Subtly impressed /
12. How he looks
13. Rough around the edges
14. And yet
15. Casually messed. /
16. And as he glances out the window,
17. He sees the sight he gets blessed with of 60
18. From across the street. /
19. Now 60
20. Was beautiful. /
21. With perfectly trimmed cuticles,
22. Dressed in something suitable. /
23. But never rude or crude at all. /
24. Unimprovable,
25. Right on time as usual,
26. More on cue than a snooker ball
27. But liked to play it super cool. /

Table 9: Byers and Crum Transcription
4.2 Pitch Results

Pitch and pause duration in '59' are represented in Table 10. The figures in the left-most column are pitches, measured in Hertz. The range in Baker’s pitch is about 90Hz to 200Hz. The numbers in each major unit section represent lines in the poem according to the Byers Crum Transcription in Table 9. Pause duration was measured within tenths of a second and is represented by the numbers in parentheses. The pauses appear directly underneath the line which precedes them in the poem. Major Units are represented as they appear in Table 9. The inspiration for this table comes from Byers page 5 (1980).

Table 10 depicts not only the range in pitches that Baker uses, but also the overall contour of his pitch. This is helpful in understanding how Baker follows and deviates from the pattern laid out by Byers. It is also helpful to illustrate the shortcomings that occur when applying Byers’ tools for identifying major units to spoken word. It is important to note, however, that the formatting does not entirely capture all of the nuances of Baker’s intonation. For example, Lines 15, 16, and 17 appear to all have the same pitch. So do lines 23, 24, 25, and 16. These onsets all have pitches which are between 125 and 150Hz, but there are slight rises and falls between these onsets. Between lines 15 (135.8Hz) and 17 (144.6Hz), there is a rise in pitch of about 10Hz. There is another rise of about 10Hz between lines 23 (133Hz), and 24 (142.3Hz), then it falls again between 24 and 25 (133.5). The pitch continues to fall until the end of the poem. Overall, this table allows for a deeper understanding of Baker’s intonation in the context of Byers’ theory on pitch and poetry.
<table>
<thead>
<tr>
<th>Pitch</th>
<th>Major Unit 1</th>
<th>Major Unit 2</th>
<th>Major Unit 3</th>
<th>Major Unit 4</th>
<th>Major Unit 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>1 (.10)</td>
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<td></td>
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<td>175</td>
<td></td>
<td>2 (.80)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>150</td>
<td></td>
<td>3 (.60)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>125</td>
<td></td>
<td>4 (.40)</td>
<td>5 (.20)</td>
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<td>100</td>
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<td>6 (.20)</td>
<td>7 (.10)</td>
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<td>75</td>
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<td>8 (.05)</td>
<td>9 (.05)</td>
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<td>19 (.20)</td>
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<td></td>
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<td>10 (.10)</td>
<td>11 (.20)</td>
<td>20 (.20)</td>
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<td></td>
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<td>12 (.10)</td>
<td>13 (.20)</td>
<td>21 (.20)</td>
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<td></td>
<td>14 (.10)</td>
<td>15 (.20)</td>
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<td>24 (.10)</td>
<td>25 (.20)</td>
<td>27 (.20)</td>
</tr>
</tbody>
</table>

Table 10: Pitch and Pause Duration in '59'
5 Discussion

In this section, I present my analysis of the results of my data collection (§4). Byers method of identifying tone-units using punctuation and syntactic indicators and predicting the pitch based on these features is not entirely effective for analyzing the genre of spoken word poetry. The following discussion describes where this approach fails to account for Baker’s performance on the levels of prediction, and transcription. I also establish how Byers’ technique can be improved to be more inclusive of spoken word.

5.1 Shortcomings in Byers’ Transcription Method

Byers approach was created for predicting poetry that is more traditional and structured than spoken word (Byers 1980, Byers 1979, & Barney 1999). Byers argues that one of the largest challenges in doing intonational research is that intonation (including pitch, pausing, loudness, etc.) is extremely variable among speakers. She also argues that poetry is variable. However, in traditional poetry there are more established structures for rhythm and intonation. There are different styles of poetry such as haiku that have rules that govern how many syllables can be used, or iambic pentameter, which governs a poem’s rhythm. Spoken word as a genre is much less structured because there is no right or wrong way to perform. This creates a challenge when using Byers’ methods.

Byers expects for the poet to follow traditional intonational and syntactic patterns. She expects that a poet will not make choices that disrupt these patterns and structures. However, disrupting the listeners’ expectations for what is possible and allowed in the English language is central to many spoken word performances. This is clear in Baker’s performance of ‘59’. The most glaring rule-breaking choice that Baker makes is to take pauses that interrupt constituency. Byers does not take such pauses under consideration in her argument. For example in Table 7, Byers would predict that line 4 is one tone-unit:

4. Takes just under a minute
Byers predicts this to be a tone-unit because, although the phrase does not contain any punctuation, it also does not contain a significant syntactic juncture. However, Baker takes a pause immediately after *takes*. Thus this phrase is actually made up of two tone units:

4. Takes  
5. Just under a minute

This pause is not only unpredictable according to the parameters that Byers lays out, but it also defies Byers' rule that there cannot be a boundary that creates a one-stress unit (Byers, 1980). Using only her approach, there is no way to account for this sort of a boundary in a transcription. Therefore it is necessary to create an additional rule: a unit boundary will occur when a syntactic unit is interrupted by a pause. A boundary may create a one-stress unit in this case.

### 5.2 Pitch and Pausing

Even considering the pauses discussed in §5.1, the prediction method for tone-units was overall successful. The boundaries that were predicted were present in Baker's performance. However, major unit prediction was not as effective.

I predicted that there would be ten major units in this segment of '59' using major punctuation as a guide. Byers claims that a major unit boundaries are made after an "unusually long pause" and before an "unusually high onset" (Byers 1980: 4). I determined how high and low pitches are defined for Baker by using the median out of the pitch measurements displayed in Table 10. For Baker, a high onset is any onset above 130Hz, and a low onset is any below 130Hz. Onsets that are at the median are defined as low. I used the same process to determine an unusually long pause. An unusually long pause is any pause that is 0.5 seconds or longer. Given these guidelines, there are actually five major units in '59'. Boundaries occur at Lines 2, 8, 18, and 20. The first major unit boundary is the only one that challenges Byers' definition. Although the pause between Major Units 1 and 2 meets the criteria for a long pause at 0.89 seconds, the onset of Major Unit 3 is low (126.9). The
interruption in the tonal phrase of the poem, or the overall pitch contour is more significant than the lack of a high onset at the beginning of a major unit. Because of the length of the pause, which is in fact the longest pause that Baker takes, it would be illogical to claim that Lines 1 through 8 are one major unit.

Other than the lack of a high initial onset in Major Unit 3, Baker’s performance follows the criterion that Byers asserts for a typical intonational pattern. Each high onset is followed by a lower one. In addition to this pattern, Baker also uses a pattern of alternating short and long pauses. See, for example, Major Unit 3:

<table>
<thead>
<tr>
<th>Pitch</th>
<th>Major Unit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td></td>
</tr>
<tr>
<td>175</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>9</td>
</tr>
<tr>
<td>125</td>
<td>10 (.11) 11 13 15 16 17</td>
</tr>
<tr>
<td>100</td>
<td>12 (.26) 14 (.11) 18 (.87)</td>
</tr>
<tr>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

Table 11: Major Unit 3

Here you can see that Baker takes a short pause after Line 10, a slightly longer one after Line 12, followed by a short and long pause in Lines 14 and 18 respectively. This is an interesting pattern that Byers does not discuss. However, she does argue that poetic intonation includes more pauses than in verse or conversational speech (Byers 1979). In about 30 seconds of performance, Baker pauses a total of twelve times, which together amount to 5.16 seconds. Roughly half of his tone-units are followed by pauses. Whether or not the amount of pauses is significant depends on the speaker. The information presented here is not comprehensive enough to determine if the amount of pauses that Baker takes is in fact indicative of poetic intonation.
5.3 Barney and Baker

In addition to using Byers’ lens to study Baker’s work, I will also compare Barney’s conclusions about Byers’ characteristics of poetry to my findings with ‘59’.

5.3.1 Slow speech rate

Barney claims that slow speech rate is an intonational feature of both poetic performance, and performance in general (1999). I don’t entirely agree. Baker certainly uses slow speech rate at some points in his performance, such as when he mentions 60, ‘59’s crush in the poem. These moments are in stark contrast to the rest of the poem. Impressionistically, most of the time Baker is using a very fast rate of speech. In fact, it is sometimes difficult to understand what he is saying because he is speaking so quickly. Baker distinguishes his spoken word performance style as separate from other poetic performances, and from performance style in general.

5.3.2 Tone-unit length

Byers claims that the average tone-unit length in poetry is 1.1 seconds long, as opposed to prose which has an average length of 1.3 seconds (Byers 1979). Baker’s average tone-unit length was about 2 seconds long\(^2\). This is divergent from Byers’ analysis of what is typical and characteristic in poetry. However, about half of his tone-units were under 1 second in length. Barney and Byers also determine that tone-units in poetry are relatively equal in length, which is also not quite true for Baker. Baker’s tone-unit length range is 1.79 seconds.

5.3.3 Pauses

In his discussion of pauses in the radio broadcast, Barney (1999) mentions a period of the broadcast in which there are more pauses than expected. These pauses occur in “syntactically and semantically unpredictable places, often very frequently” (Barney 1999, 161), and are

\(^2\)Tone-unit is defined as the period of speech before a pause.
meant to direct listener attention to the end of something (Barney 1999 & Abercrombie 1991).

This type of silent stress (Barney 1999) occurs in Baker’s ‘59’. Baker often pauses in the middle of a clause as in line 6 of Table 8:

(6) He can’t help but look in the mirror and be

In this line, Baker takes a pause during a verb phrase. However, he is not indicating that anything is about to end. Therefore this kind of pause is indicative of one that is different from the silent stresses described by Barney. They are also different from the types of pauses that Cope takes in her poem. Cope’s pauses are typically cleanly located at the line boundaries that she wrote, or at a clause or phrase boundary (1999). It is possible, therefore, that because the unexpected pauses made by Baker are disparate from both traditional poetry and other performance styles, it is characteristic of spoken word poetry.

5.3.4 Pitch and pitch range

Barney (1999) suggests that low pitch and narrow pitch range, which Byers (1979) claims are poetic features, are features of performance as a whole. There is not currently enough information from ‘59’ to suggest that it has a lower average pitch, or narrower pitch range than other varieties of performance and speech. Baker’s average pitch is 124Hz, and his range is about 100Hz.

5.3.5 Falling melodies and falling nuclei

As demonstrated in previous sections, Baker’s pitch consistently follows a pattern of falling nuclei and melody. Although Barney (1999) argues that this is a feature of both performance styles, it seems as though it is more commonly used in poetry. My data supports that it is utilized also in spoken word performances.
6 Conclusion

Baker uses a variety of rhythmic patterns throughout “59”. The entire poem is four minutes and three seconds long and I have focused on about thirty seconds of it. My analysis of Harry Baker's poem, “59” is consistent with Byers’ findings: there is a pattern of falling pitch melodies which end in a long pause before the next major unit. Each major unit, except Major Unit 2, begins with a high initial onset. I also noticed a pattern of alternating short and long pauses. There were exceptions to this pattern, as Byers (1980) predicts. For example, the initial onset in Major Unit 2 is low rather than high. Baker also makes syntactically surprising choices, such as making the listener wait to hear the argument of a verb, as in Lines 10 and 11:

10. And be
11. Subtly impressed/

A pause of .11 seconds follows be (Table 10), creating a tone-unit boundary which defies Byers’ rule that there cannot be boundaries which create one-stress units (Byers 1980).

The unexpected pauses that Baker takes are demonstrative of one area where Byers’ method for predicting the sound of poetry is incomplete. Unconventional syntactic and phonological choices are common in spoken word, as the genre encourages poets to think outside the box. “Slam poetry aims to actively engage and entertain its audience, sometimes confrontationally, through live performance.” (Somers-Willett 2009: 19). I contend that one of the ways that poets achieve this goal is by pushing the limits of what audiences believe to be possible in English.

The data in this thesis comes from a very small sample. Both the data and the analysis are meant to serve as an example of the kind of work that can be done on spoken word poetry. I think that it is clear from these findings that intonational patterns do exist in spoken word poetry; however there may be infinitely many patterns. One of the biggest remaining questions for me is how poets utilize these patterns and if the patterns I found in

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Baker’s poetry exists in the works of other poets. This requires more research, and breaking down more poetry in the way that I have been able to do for this thesis. With a larger data set, it would also be possible to conduct a more in-depth statistical analysis of the claims that Barney makes about characteristic intonational features in poetry.

It is important to acknowledge also that scope of this research is on one poet. Harry Baker is a young, white man from the UK. He was a university math student when he began his poetry career (Baker 2014). The intersections of spoken word poetry and identity are significant. Dialect and speech community can have an enormous impact on intonation (Ladd 2008). Byers and Barney study intonation from a British English perspective. It is very possible that there are patterns in British English intonational phonology which are not consistent in other varieties of English. Stoudamire studies spoken word poetry in the African American language community (§1.2). She emphasizes the importance that having expertise in a language community can have in understanding the semantic significance of intonational choices of poets (Stoudamire 2012). In future research on spoken word and intonational phonology, this overlap in language community, culture, and intonational understanding is significant and worth study.

It would also be interesting to create an interview or survey for listeners and poets. It would be interesting to find out directly from poets what they think of “poet voice”. Is “poet voice” a technique or style that is taught? Do poets like it or aspire to sound a certain way? Or do they try to avoid it? As for listeners, it would be interesting to play them clips of poems and ask them what they hear. What stands out for them?

In conclusion, there is still a lot of work to be done on this topic, which is why it is so compelling. With each attempt at analysis and collecting data, I develop more questions and interest. There is a lot more potential for data collection, as the pool of resources, i.e. videos on the internet, is unlimited. I also believe that this is work worth doing because spoken word can provide not only cultural information, but also linguistic insight on performance, and how language can be used imaginatively to convey messages through pitch and other
intonational features. There has not been much scholarly work on spoken word from a linguistic perspective. As Chantal Lemire writes, “Academic inquiry into spoken word appears almost exclusively in literary criticism and culture studies” and “to date neither [linguistics nor musicology] has considered spoken word analytically” (2013:10). This thesis stands as an attempt to expand linguistic research on spoken word poetry and to shed light on its importance.
References


Lemire, Chantal. 2013. At the “crossroads”: the interaction between speech and rhythm and musical rhythm in Tom Wait’s spoken word song. Vancouver: The University of British Columbia thesis.


