

Emotional Sound Symbolism and the Volta in Shakespearean and Petrarchan Sonnets

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Abstract

Sonnets written in the Shakespearean or Petrarchan form are both assumed to present and then answer a problem, but they do so in different ways. The two forms have different rhyming schemes. The volta or turn is predicted to occur between lines 12 and 13 in the first and lines 8 and 9 in the second form. It is argued that sound in poetry is emotionally communicative (symbolic), especially when the predominance of Harsh (e.g., t, r) over Gentle (e.g., l, m) sounds is considered. An analysis of the sounds (phonemes) in various exemplars of the two forms (N=285 sonnets) was undertaken. Shakespeare's sonnets represented his form and those of a variety of authors represented the Petrarchan form. Predominant Harshness was the dependent variable in a design which compared line and form. There were significant effects associated with line, form, and their interaction ($p < .05$). Shakespeare's sonnets, had a lower predominant Harshness than the Petrarchan sonnets. Both Shakespearean and Petrarchan sonnets exhibited a major drop in predominant Harshness (a volta) between lines 8 and 9. Both began on a gentle note, increased in predominant Harshness as problems were being expounded, and returned to a gentler note for their endings. Only Shakespearean sonnets had a spike in harshness in the third quatrain, suggesting that the author was still unfolding problems rather than resolving them there.

Keywords: sound symbolism, emotion, sonnets, Shakespearean, Petrarchan

1. Introduction

1.1 The Sound Structure of Sonnets

This research examines sonnets in terms of their sound structure. Fuller (2011) emphasized the immediate experience of poetry and stressed the importance of both sound (p. 76) and emotional engagement (p. 16) in the reading of sonnets. Approaching the issue of poetic appreciation from a different perspective, Skinner (1941) took a rigorous behavioural stance to the analysis of poetry which involved an examination of its sound patterns. Combining these viewpoints, Whissell (2017) identified the location of emotional turns in Shakespeare's sonnets on the basis of their sound patterns. This article aims to demonstrate that sounds (phonemes), which convey emotional information, are an important cue to poetic form especially for highly structured poems such as sonnets. Sonnets present a problem and then resolve it. (Note 1) Of special interest within a sonnet is the volta or turn, which is assumed to occur between the presentation of the problem and its resolution, and the predicted location of this turn in Petrarchan and Shakespearean forms.

Petrarch's name is associated with the Italian sonnet form and Shakespeare's with the later-developing English form (Table 1). Other sonnet forms exist, but these two (Petrarchan/Italian and Shakespearean/English) have consistently influenced authors of sonnets written in English. Sonnets have a rather rigid structure (Chiasson & Rogers, 2009; Fuller, 1972), which is summarized in Table 1. There are prescriptions for the sonnet's length, its meter, its rhyming schemes, and the nature and location of its volta. A sonnet's volta is broadly defined as its turning point. According to the Oxford Dictionary of Literary Terms (Note 2) the volta can refer to a turn in the development of an argument, but it can also refer to a turn in mood within the poem, for example from a harsher mood to a gentler one, or vice versa. The definition of volta in terms of mood is recognized by Fuller (1972, p. 2) who speaks of voltas in terms of "a shift of thought or feeling" between one part of the poem and another. Whissell (2017) noted the presence of several voltas in Shakespeare's sonnets: she identified these on the basis of the changes in mood expressed by the sounds in the poetry. Sounds convey emotional messages (Whissell, 2000) and a turn in mood was observed when the predominance of Harsh sounds over Gentle ones changed

abruptly between one sonnet line and the next. Predictions from existing models of sonnet form (Table 1) place the key volta for a sonnet either between lines 8 and 9 (Petrarchan form) or between lines 12 and 13 (Shakespearean form). This paper examines sound distributions in the sonnets of Shakespeare himself and those of several poets who wrote in the Petrarchan form (Donne, Milton, Petrarch’s translator MacGregor, Barrett Browning, & St Vincent Millay) in an attempt to locate voltas within the sonnets.

Table 1. Shakespearean and Petrarchan sonnet forms

1	Length	14 lines (both forms)
2	Meter	Iambic Pentameter (both forms)
3	Rhyming Scheme	Several possible, including a. abba abba cde cde (Petrarchan or Italian) b. abba abba cd cd cd (alternative Petrarchan) c. abab cdcd efef gg (Shakespearean or English)
4.	Definition of Volta	literally, “turn”, figuratively, “turning point”; alternatively (abrupt) change in thought or argumentation, (abrupt) change in mood
5	Location of Volta	a. Petrarchan - between lines 8 and 9 b. Shakespearean - between lines 12 and 13

Sources: Google, Dictionary.com, Benét’s Reader’s Encyclopedia, 3rd ed. (1987); Chiasson & Rogers (2009); Fuller (1972). Each letter in the rhyming scheme represents the end of one of the 14 lines, with matching letters indicating a rhyme.

1.2 How the Sounds in a Poem Reflect/Express Emotion

The sounds we use when we speak convey emotional information. Whissell (2000) noted that some phonemes (a phoneme is the basic sound building block of a word) occurred more often in words that were unpleasant and active while different phonemes occurred more often in words that were pleasant and passive. The first group of words, Harsh words, includes words such as “disgust”, “murder”, and “terrified”, while the second group, Gentle words, includes words such as “beautiful”, “love” and “mommy”. Sounds appearing at significantly higher rates in Harsh words were sh, oo (the vowel in “shoe”), k, er (the ending of “under”), r, d, g, t, p, ng (in “-ing”), short e (as in “hit”), and oi (as in “coy”). The IPA symbols for these Harsh sounds are ʃ, u, k, ɜr, r, d, t, p, ɪ, and oɪ. Sounds appearing at significantly higher rates in Gentle words were l, v, long e (the vowel in “see”), soft e (the vowel in “let”), soft a (the vowel in “paw”), ai (the diphthong vowel in “bind”), soft th (the th in “thump”), hard th (the th in “then”), m, and z. The IPA symbols for these ten Gentle sounds are l, v, i, e, ə, ai, θ, δ, m, and z.

The mood of a poem, or of a line within a poem, is revealed by the proportion of Harsh sounds in it in relation to the proportion of Gentle ones. There are frequently more Harsh than Gentle sounds in English texts because the category of Harsh sounds includes some of the most common phonemes in English (t, r, and d). However, the degree to which Harsh sounds predominate can vary from line to line. Edna St Vincent Millay’s sonnet “How healthily their feet upon the floor” is employed to illustrate the scoring procedure used for sounds and the calculation of predominant Harshness (Table 2). The sonnet has a Petrarchan rhyming scheme of abba abba cde cde. It was first subjected to a broad phonetic transcription (executed by a computer program) whose output is exemplified here. Each lower case letter and each pair of upper case letters represents a single phoneme. The last line of the sonnet (I am rebuked that I believe in death) was transcribed as follows:

AY AE m r IY b y UW k t DH AE t AY b IH l IY IY v IH n d IY TH.

This line contains 25 phonemes. Eleven of them (AY, m, IY, DH, AY, IY, IY, v, IY, and TH, in that order) are Gentle phonemes while eight of them (r, UW, k, t, t, IH, IH, d, in that order) are Harsh ones. The line therefore contains 11/25 or 44% Gentle phonemes and 8/25 or 32% Harsh ones. The six unclassified phonemes which include AE, n, and b form the remaining 24% of phonemes in the line.

Every line of the sonnet in Figure 1 has been treated in the manner outlined above and is described in terms of its percentage of Harsh and Gentle sounds or phonemes in Table 2. The difference between the two values (percent Harsh - percent Gentle) represents the predominance of Harsh sounds. For example, in the first line of the sonnet, whose sounds are quite gentle, the predominance of Harsh sounds equals 20-44 or -24 because Gentle sounds actually predominate. The nature of line 4 is quite different. This line includes many more Harsh than Gentle sounds (46-19 or 27% more). Another notably Harsh-sounding line is line 8 (32% predominance of Harsh sounds), while the closing lines of the sonnet (13, 14) have negative values for predominant Harshness and are rather Gentle in comparison.

Table 2. Analysis of Edna St Vincent Millay’s sonnet “how healthily their feet upon the floor”

Line	Contents of Line	Rhyme	G%	H%	pH*	Comments
1	How healthily their feet upon the floor	a	44	20	-24	Opening in Gentle tone
2	Strike down! These are no spirits, but a band	b	20	37	17	
3	Of children, surely, leaping hand in hand	b	29	36	7	
4	Into the air in groups of three and four,	a	19	46	27	Harsh line, volta after line 4
5	Wearing their silken rags as if they wore	a	30	37	7	
6	Leaves only and light grasses, or a strand	b	31	31	0	
7	Of black elusive seaweed oozing sand,	b	36	32	-4	Volta after line 7
8	And running hard as if along a shore.	a	8	40	32	Harshes line, volta
9	I know how lost forever, and at length	c	33	25	-8	
10	How still these lovely tossing limbs shall lie,	d	52	24	-28	Gentlest line
11	And the bright laughter and the panting breath;	e	21	39	18	
12	And yet, before such beauty and such strength,	c	16	29	13	
13	Once more, as always when the dance is high,	d	26	11	-15	Return to Gentle tone
14	I am rebuked that I believe in death.	e	33	32	-12	

Note. G% represents the percentage of Gentle sounds, H% the percentage of Harsh sounds and pH the predominance of Harsh Sounds.

When we pronounce Harsh sounds our mouths and speaking apparatus engage in relatively stiff postures, while when we pronounce Gentle sounds they engage in softer postures (Whissell, 2000). As well, the sound signals produced by Harsh sounds are more abrupt (plosive) than those produced by Gentle sounds, many of which are vowels. One could experience this difference by speaking aloud the Gentlest line (number 10) and the Harshes line (number 8) of the poem in Table 2. In terms of content, line 8 of the poem is full of vigor while line 10 is gently sad. Enunciating the phrases “staggering idiot” and “lovely violin” will highlight a similar contrast in face and mouth posture and in sound signal. When Harsh sounds predominate in a portion of a poem, the author has employed words whose sounds automatically convey a sense of activity and unpleasantness (harshness, bleakness, roughness), suggesting that the author is more likely to be establishing a problem than resolving one. When Gentle sounds predominate, or when Harsh sounds are rarer, the author’s sound choices convey a sense of gentleness, tenderness, or mildness, and are more likely to represent a resolution rather than a problem.

Figure 1 displays the change in the predominance of Harsh sounds across lines of the sonnet. An abrupt change in the poem’s mood—a mood volta—is identified on the basis of a change in the direction of the line in the graph. Predominant Harshness rises until line 4 of the sonnet, and then drops abruptly. It then rises until line 8 and then drops again. There is an abrupt rise in predominant Harshness between lines 10 and 11, and a drop between lines 12 and 13. All these changes represent mood voltas—turning points in the mood of the poem. There are voltas at both the expected points—between lines 8 and 9 (Petrarchan form) and between lines 12 and 13 (Shakespearean form), as well as additional voltas. The emotions in the poem sway from gentleness toward harshness and back again several times. Notably, the poem begins and ends on a note of relative gentleness.

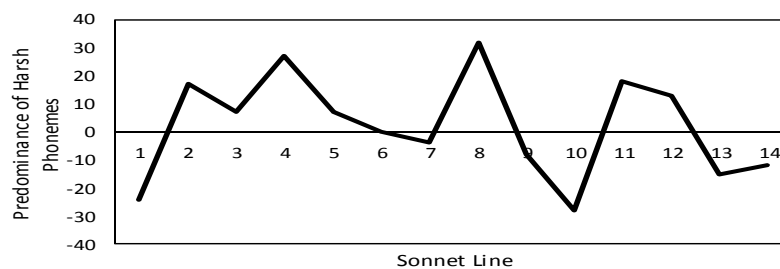


Figure 1. Plot of predominant Harshness across the 14 lines of Edna St Vincent Millay’s sonnet “how healthily their feet upon the floor”

1.3 The Predicted Location of Voltas

A volta is predicted to exist between lines 8 and 9 in Petrarchan sonnets partly because of the rhyming scheme of

such sonnets (Fuller, 1972, p. 2). The Petrarchan rhyming pattern of abba abba, which characterizes the first eight lines (the octet), discriminates these eight lines clearly from the remaining six lines (the sestet) which have a rhyming patterns such as cd cd cd or cde cde. The change in rhyming pattern signals a change in poetic content. This type of change does not characterize sonnets in the Shakespearean scheme, where the poem is divided instead into three quatrains (abab, cdcd, efef) and a final rhyming couplet (gg). Theoreticians have noted that the first eight lines in Petrarchan sonnets present a problem while the last six resolve or answer it (Fuller, 1972, p. 3). The repeated rhyming pattern of the first eight Petrarchan lines (abba abba), which indicates a break between two matched sets of rhymes, may encourage the expectation of a division between the two sets of lines which state and then elaborate upon a problem (Fuller, 1972, pp. 2-4). The fact that the sestet is shorter than the octet forces the poem to rush to a resolution, and sonnets are deemed to revolve around the volta (jump, turn, difference) between lines 8 and 9. *Post hoc* explanations for the success of the Petrarchan sonnet form have called upon mathematical concepts such as Pythagoras' theorem, the Golden Section, and Fibonacci numbers to explain the appeal of the octet-sestet division (Chiasson & Rogers, 2009). In Shakespearean sonnets, the problem is not deemed to be resolved until the final couplet, which is rhymed differently (gg) than the preceding three quatrains. Fuller (1972, p. 14) suggests that this inferior sonnet form came about because of the failure of early English authors to recognize the true (Petrarchan) form, and their habit of ending their poems with rhyming couplets. The English form leads to the expectation of a volta between lines 12 and 13 in Shakespearean sonnets. For both sonnet forms, it has been suggested that the first two quatrains represent the statement and restatement of the main issue of the sonnet, so a volta may also appear in Shakespearean sonnets between line 4 and 5.

In summary, it is expected that Petrarchan sonnets should have a clear volta between lines 8 and 9 (between the problem and resolution of the sonnet) and a possible volta between lines 4 and 5 (between the statement and restatement of the problem). It is expected that Shakespearean sonnets should have a clear volta between lines 12 and 13 (between problem and resolution) with possible voltas occurring between lines 4 and 5 (between statement and restatement) and lines 8 and 9 (between quatrains with different rhyming schemes).

The predictions of the Petrarchan model for the location of voltas can be evaluated in terms of Figure 1 which displays changes in predominant Harshness for Edna St Vincent Millay's sonnet that has a Petrarchan rhyming scheme. As expected, there are noticeable downturns in predominant Harshness between lines 4 and 5 (first and second quatrain), and between lines 8 and 9 (octet and sestet). There is also downturn in predominant Harshness between lines 12 and 13, which was not predicted for this type of sonnet (although it was predicted for Shakespearean sonnets). The interpretation of the Petrarchan sonnet as a poem stating a problem in the first eight lines and resolving it thereafter is confirmed by the fact that Harshness rises in the early quatrains of the poem, while the poem both begins (introduction) and ends (resolution) on a Gentle note. This analysis of the poem relies entirely upon its sound patterns. In terms of the verbal contents of the sonnet, the author begins by gently noticing dancing children (line 1), who are eventually described actively as leaping into the air (lines 3-4). The poem takes a step back towards gentleness with lines 5, 6, and 7 which describe the children's clothing (silken rags, oozing seaweed) but returns to the actively running children in line 8. Images of death take the poem back to a gently sad mood in lines 9 and 10 after which laughter and strength make lines 11 and 12 more active, and, finally, in lines 13 and 14 the dance becomes a dance interpreted against the background of death. Gentleness is associated with lines describing dancing, the children's clothing, and death. Harshness or activation is associated with leaping, running, laughter and strength. The sound analysis of the poem is coherent with this analysis of its verbal contents.

2. Method

In this data set Shakespearean sonnets were represented by Shakespeare's own 154 sonnets which were published in 1609. These were downloaded from Project Gutenberg. (Note 3) Petrarchan sonnets were represented by 131 sonnets written by five authors who wrote at different times and with different themes. In historical order, there were 19 Holy Sonnets written by John Donne (published posthumously in 1633), which were downloaded from sonnets.org. (Note 4) The data set included 18 sonnets written by Milton (published with other works in 1645 and 1673), which were downloaded from the Dartmouth reading room, (Note 5) and 44 sonnets written by Elizabeth Barrett Browning (published in 1850 as *Sonnets from the Portuguese*), which were downloaded from Project Gutenberg. (Note 6) English translations of the first 24 of Petrarch's sonnets, performed by Robert MacGregor (1854; MacGregor was the first person to translate the complete set of sonnets into English), were also downloaded from Project Gutenberg. (Note 7) Twenty-six of Edna St Vincent Millay's sonnets (published at various times in the early 20th century) were downloaded from sonnets.org. (Note 8) The sonnets varied in terms of content: some were love sonnets (e.g. Shakespeare's), some religious (e.g. Donne's), and some political (e.g., some of Milton's). They also varied in terms of form of publication: Barrett Browning's,

Shakespeare's and MacGregor's translations were sonnet suites, but the sonnets of St Vincent Millay and Milton stood by themselves. The Petrarchan sonnets were characterized by octets shaped by the rhyming scheme abba abba, but the rhyming schemes of the sestet varied. The sonnets were all transcribed phonetically by a computer program (Note 9) and a second program written by the author was used to count the proportion of Harsh and Gentle sounds within each line and to compute the difference between the two percentages: this variable, the predominance of Harsh sounds, was the outcome variable.

A possible problem of this research is that Shakespearean sonnets are represented only by Shakespeare, while Petrarchan ones are represented by several authors. A second problem rests with the fact that the samples tested here cannot claim to be either randomly sampled or strictly representative of the genres which to which they belong. However, the research being conducted is relatively novel: the sonnets employed were selected as a starting-point rather than an end-point of research into sound patterning. Shakespeare's sonnets have a fair claim to being studied because of their importance in English literature, and the remaining authors whose work was selected were also eminent in the field. MacGregor, a translator, might be less well known but he translated Petrarch's sonnets.

3. Results

The criterion variable of the research was predominant Harshness in sonnet lines. Line (1 through 14) was the repeated measure in a General Linear Model analysis of variance, while sonnet form (Shakespearean versus Petrarchan) was the fixed between subjects factor. There were significant differences among lines ($F_{13,3653}=5.60$, $p<.001$, $\eta=.14$) and among sonnet forms ($F_{1,281}=13.40$, $p<.001$, $\eta=.22$). The interaction of these two variables was also significant ($F_{13,3653}=1.805$, $p<.04$, $\eta=.08$). Means representing the main effects and the interaction are reported in Table 3 and depicted in Figure 2.

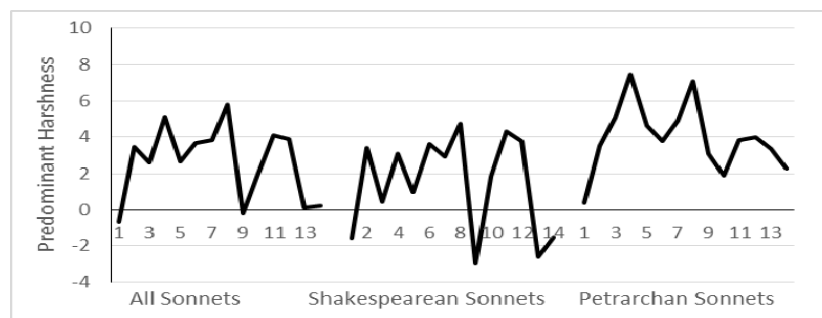


Figure 2. Plots of predominant Harshness across lines for all sonnets and for Shakespearean and Petrarchan sonnets separately

Table 3. Line averages for the percentage predominance of Harsh sounds (lines are arranged from harshest to gentlest for the total set)

Line	All Sonnets	Shakespearean	Petrarchan
8	5.82	4.72	7.11
4	5.11	3.09	7.48
11	4.10	4.33	3.82
12	3.86	3.75	3.97
7	3.82	2.92	4.88
6	3.67	3.60	3.75
2	3.44	3.41	3.48
5	2.66	.96	4.65
3	2.57	.45	5.06
10	1.88	1.85	1.91
14	.23	-1.52	2.27
13	.15	-2.60	3.35
9	-.19	-2.97	3.07
1	-.69	-1.61	.39
Mean	2.61	1.47	3.94
SE _{difference}	1.20	1.60	1.70

Note. The standard error of the difference reported for each column was derived from repeated measures t-tests. Dividing the difference between two means in any one column by the standard error yields a *t* statistic, which is significant at $p<.05$ when ≥ 2 .

Shakespeare's sonnets have a significantly lower predominant Harshness than the Petrarchan sonnets (1.4% versus 3.9% respectively). When the various Petrarchan authors were compared to one another in a subsidiary analysis, there was no significant difference among them in terms of overall predominant Harshness ($p > .05$). The presence of a significant main effect for lines suggests that some of the 14 lines are typically harsher-sounding than others. Lines are listed in Table 3 in decreasing order of predominant Harshness for the whole group of sonnets. Lines 8 and 4 are the harshest (5.5% predominance, on the average). Lines 11, 12, 7, 6, and 2 come next with 3.8% predominance of Harsh sounds. These are followed by lines 5, 3, and 10 with 2.4% predominance, and finally by lines 14, 13, 9, and 1, the gentlest lines, with -.1% predominance of Harsh sounds. According to repeated measures t -tests, the standard error of the difference between pairs of means for all sonnets is approximately 1.20. This number allows the reader to compare any pair of means within the first column of Table 3 by subtracting the lower mean from the higher one and dividing the difference by 1.20. Resulting t statistic values are significant ($p < .05$, two-tailed) if they are $\geq |1.98|$ (or, in rough terms, numerically greater than two). Separate standard errors of the difference for Shakespearean and Petrarchan sonnets can be used in the same manner, each being applied to the appropriate column of means in Table 3.

In terms of *a priori* predictions, it is important to know if there are significant differences between lines 4 and 5 (statement and re-statement of the problem), lines 8 and 9 (problem and resolution, Petrarchan model), and lines 12 and 13 (problem and resolution, Shakespearean model). According to repeated t -tests, predominant Harshness decreases significantly between lines 4 and 5 ($p < .045$). It also decreases significantly between line 8 (the harshest-sounding line of all) and line 9 (one of the gentlest, $p < .001$). There is a third significant decrease in predominant Harshness between lines 12 and 13 ($p < .003$). Voltas were confirmed in all the expected locations. Harshness builds up to line 4 and then drops, then it builds up to line 8 and drops again, after which it builds up to line 12, and then drops one final time. The drop between sonnet lines 8 and 9 is the largest for contiguous lines (6 percent), so there is a serious change in emotional tone taking place at this point for the entire group of sonnets.

The presence of a significant interaction suggests that the differences between lines noted in the previous paragraph do not apply uniformly to Shakespearean and Petrarchan sonnets. Separate means for each sonnet form are reported in Table 3. Notably, the difference between lines 4 and 5 is only significant for the combined data set because a loss of power with smaller samples leads to a non-rejection of the null when the two types of sonnets are separated (t -tests, $p > .05$). However, line 4 is one of the harsher lines for both sonnet forms. The difference between lines 8 and 9 is significant for both types of sonnet ($p < .011$), but the difference between lines 12 and 13 is only significant for Shakespeare's sonnets ($p < .01$). This provides strong confirmation for predictions based on Table 1 which suggest that Petrarchan sonnets turn after line 8 while Shakespearean ones turn after line 12, except for the fact that Shakespearean sonnets also turn after line 8, where no distinct volta was predicted. Interestingly, sonnets of both forms begin at their lowest level of predominant Harshness (line 1 is significantly lower in predominant Harshness than most other lines), and sonnets of both forms end on a relatively gentle note (there are low values for predominant Harshness in lines 13 and 14).

Post hoc t tests were used to examine the depth of the voltas noted between lines 8 and 9 (for both types of sonnet) and between lines 12 and 13 (for Shakespearean sonnets). Depth was represented by the drop in predominant Harshness between the two adjacent lines. There was no difference in the depth of the volta between lines 8 and 9 for the two types of sonnets: both Shakespearean and Petrarchan sonnets exhibited an extreme shift from a harsh-sounding line (8) to a more gentle-sounding line (9). For Shakespearean sonnets, the drop in predominant harshness between lines 8 and 9 did not differ from that between lines 12 and 13: the shift from harshness to gentleness was similar in these two locations. Figure 3 integrates these and other significant findings with the model of the sonnet as presenting and then answering a problem. This figure highlights both similarities and differences between Shakespearean and Petrarchan sonnets, which seem to unfold in a common pattern for lines 1 - 9 and diverge thereafter, reuniting their forms in the gentle conclusion.

4. Discussion

Four conclusions with interesting implications can be drawn from the analyses described above. The first and most important of these is that both Shakespearean and Petrarchan sonnets exhibit a major turn in mood between lines 8 and 9. The second is that both Shakespearean and Petrarchan sonnets begin on a gentle note, increase in relative harshness while problems are being expounded, and return to a gentle note for their endings. The third is that Shakespearean sonnets - only - have a spike in harshness in the third quatrain (lines 9, 10, 11, 12), which suggests that the author is still developing problems rather than resolving them in that location, in spite of the fact that he has already provided a strong volta between lines 8 and 9. The fourth and final conclusion has to do with the overall gentleness of Shakespeare's sonnets, which have a lower predominant Harshness than the

Petrarchan sonnets.

4.1 “Sweet” Shakespeare

Shakespeare employed relatively more Gentle sounds in his poems than the Petrarchan authors. This could be due to the fact that his are, by and large, love sonnets. As well, Shakespeare wrote in a very self-effacing style which would have increased the gentleness of his language, even though this might have been an artifice (Klauss, 1983). Next gentlest, in descending order of predominant Harshness after Shakespeare (1.47%), were Barrett Browning’s love sonnets (2.15%), then Milton’s mixed sonnets (3.73%), then Donne’s Holy Sonnets (4.56%), then MacGregor’s translations of Petrarch (4.87%) and finally St Vincent Millay’s more modern sonnets (5.82%). In a statistical comparison, Shakespeare’s gentleness was greater than that of Millay, MacGregor, and Donne, but not different from that of Milton or Barrett Browning.

All Sonnets

Line 1 - Introduction with Gentle sounds

↓

Line 2 - Increase in Harshness of sounds as a problem is presented

↓

Line 3 - Further Increase in Harshness as the problem unfolds

↓

Line 4 - High Harshness as the problem is emphasized

↓

Line 5 - Slight reduction in Harshness (V)

↓

Line 6 - Increase in Harshness as the problem is restated

↓

Line 7 - Further increase in Harshness

↓

Line 8 - Extreme Harshness as the problem is accentuated

↓

Line 9 - Enormous decrease in Harshness (V)

↓

Shakespearean Sonnets

Line 10 - New increase in Harshness (V)

↓

Line 11 - Continued Harshness/problem

↓

Line 12 - Continued Harshness/problem

↓

Line 13 - Extreme decrease in Harshness (V)

↓

All Sonnets

Line 14 - Gentleness as the problem is “resolved” and the sonnet ends

Petrarchan Sonnets

10 - Harshness remains low

11 - Harshness remains low

12 - Harshness remains low

13 - Harshness remains low

13 - Harshness remains low

13 - Harshness remains low

13 - Harshness remains low

13 - Harshness remains low

Figure 3. A line by line model of Shakespearean and Petrarchan sonnets highlighting their similarities and differences

Note. Lines evidencing a volta (a significant change in emotional mood from the previous line) are marked with a V.

4.2 Here a Volta, there a Volta, Everywhere a Volta

Data suggest that all authors adhered to the imperative of the distinct octet—the first eight lines of the sonnet where a problem is presented and then restated. There is strong evidence of increasing harshness as the problem unfolds, followed by a volta—a pronounced decrease in harshness—after line 8. As Figure 3 indicates, however, Petrarchan sonnets remain at a relatively low level of harshness for the entire sestet which follows this volta while Shakespeare’s sonnets have one more peak of harshness which is followed by a volta between lines 12 and 13 that is as extreme as the one between lines 8 and 9. The ten Shakespearean sonnets with the highest rise in harshness between lines 9 and 10 (numbers 23, 42, 56, 62, 64, 81, 121, 141, 142, and 146) were examined to help propose some explanation for the rise of harshness in the third quatrain. Lines 9 and 10 of these sonnets are recorded in Table 4. According to Vendler’s facsimiles (1997), six of the 10 sonnets had a period or question mark, indicating that a sentence had terminated, at the end of line 8. Three of them had a full colon in that

position, signifying that the next clause was an independent one. Following these stoppages, Shakespeare began line 9 with the words “but”, “then”, “O”, “if”, “when” “no” and the phrase “be it” in eight sonnets. These word choices suggest that the contents of the third quatrain are to be interpreted in juxtaposition to those of the second. Line 9 is a positioning line: it allows the author one final opportunity to place himself in a position where he can insist on the problem. The third quatrain seems to begin with an expression of the sentiment “No matter what you or I say/think/feel...”, and continue to insist “I still believe there is a problem”. Lines 10, 11, and 12 return vigorously to a restatement of the problem, with the final volta appearing between lines 12 and 13. Thus, although Shakespeare has a volta between lines 8 and 9, he does not have a resolution to offer until line 13. A scan of all 154 sonnets in facsimile confirmed that 84% of them had clear stoppages (periods, question marks, or colons) at the end of line 8. There is very little evidence of a continuity between the second and third quatrains. Rather the author completes his thought process, repositions himself, and then turns to strike again. Vendler (1997, p. 35) suggests that Shakespeare’s quatrains are structured as a series of oppositions, where the second quatrain is an antithesis of the first and the third an antithesis of the second, each in turn taking a more deeply analytical approach to the problem. The third quatrain, in this model, offers the final version of the problem and the couplet offers not a resolution but an ironic closure—often represented by a verbal shrug (p. 26).

Table 4. Line 9 (gentle positioning line) and 10 (line where the author returns to the harshness of the problem) from 10 Shakespearean sonnets showing an extreme rise in harshness between these two lines

23: O! let my looks be then the eloquence / And dumb presagers of my speaking breast...
42: If I lose thee, my loss is my love's gain, / And losing her, my friend hath found that loss...
56: Let this sad interim like the ocean be / Which parts the shore, where two contracted new...
62: But when my glass shows me myself indeed / Beated and chopp'd with tanned antiquity...
64: When I have seen such interchange of state, / Or state itself confounded, to decay...
81: Your monument shall be my gentle verse, / Which eyes not yet created shall o'er-read;
121: No, I am that I am, and they that level / At my abuses reckon up their own:
141: But my five wits nor my five senses can / Dissuade one foolish heart from serving thee...
142: Be it lawful I love thee, as thou lov'st those / Whom thine eyes woo as mine importune thee...
146: Then soul, live thou upon thy servant's loss, / And let that pine to aggravate thy store...

4.3 Factors Qualifying the Results

The research in this paper was proposed as an early foray into a relatively new research domain. It has been acknowledged that further sonnets of both types (Shakespearean and Petrarchan) need to be studied before any final conclusions can be reached. Whissell (2017) has noted a possible problem with the pronunciation and phonetic transcription of older texts. There is evidence that certain words are pronounced differently in the 21st century than they were in the 16th and 17th, but there is also evidence of continuity in pronunciation, especially for the consonants in the Harsh and Gentle categories. The analyses offered here apply most directly to today’s readers of the sonnets, an immediacy that Fuller (2011, p. 77) would applaud. By generalization, and slightly less directly, results can be assumed to apply to all readers.

In spite of the presence of significant statistical differences among sonnet types, the effect sizes of the research (η) were quite weak indicating a great deal of variability among sonnets. For example, the Petrarchan sonnet illustrated in Figure 2 has a jump in harshness in its last quatrain very much like those evidenced by Shakespearean sonnets. It also has an overall score indicative of great gentleness, a characteristic of Shakespearean sonnets. This was especially surprising as the sonnets of Edna St Vincent Millay were generally the harshest-sounding of all. The results of this research are best interpreted as generalizations that apply to groups of sonnets. Individual sonnets may be described in terms of these generalizations *and* their deviations from them.

There were differences in style among the Petrarchan authors, for example, in their total predominant Harshness as discussed above. Discriminant function analyses were employed to predict the sonnets of each single author in comparison to the entire remaining group, with significant results ($p < .05$) for every author except Barrett Browning. Donne’s sonnets were correctly identified (58%) on the basis of high predominant Harshness in line 3. McGregor’s translations of Petrarch were correctly identified (67%) on the basis of high predominant Harshness in line 13. St Vincent Millay’s sonnets were correctly identified (62%) on the basis of high predominant Harshness in both lines 3 and 13. Milton’s sonnets were identified (72%) on the basis of high predominant Harshness in line 6, and Shakespeare’s (65%) on the basis of low predominant Harshness in lines 4, 9, and 13.

These results are marginal, but they point to the fact that differences worthy of further study do exist.

The prediction of a volta for Shakespearean sonnets between lines 12 and 13 is a bit of a straw man—not because it has not been proposed by several authors but because critics (e.g., Vendler, 1997, p. 35) have also recognized Shakespeare’s acceptance of the transition between second and third quatrains as an important component of sonnet structure. The *a priori* predictions did not exclude the possibility of a volta between lines 8 and 9, but this was not the primary expected location for the turn in Shakespeare’s sonnets: it is the depth of the volta between lines 8 and 9 that was an unexpected finding of the research.

Finally, the conclusions offered here should be interpreted against a background of variable sonnet form. Early authors (e.g., Milton, as noted by Curlin, 1993) felt free to manipulate the form to suit their own purposes, and Sheppard (2016) refers to the “sonnet-like,” “sonnet-aspirant,” and “sonnet-deviant” productions of various authors which suggests that similar manipulations continue.

4.4 Conclusions

Is it fair to break sonnets down into their constituent sounds in order to interpret them? Masson (1964, p. 327), who was analyzing “sound in sense” in one of Rilke’s sonnets, mentions that “some readers, even though they feel the effects of sound, may regard all analysis of this genre as tantamount to dismemberment and all the sordid horrors of a post mortem”. Sonnets are oral and aural: they materialize in the mouth of the speaker and in the ear of the listener. Because of this, sonneteers tend to (consciously or unconsciously) deploy sounds that emotionally color the message they are conveying. This is the message of a problem first posed and then answered in some manner. Harsh sounds such as t, d, and g appear more often when the problem is being established while Gentle sounds such as l, m, and long e appear more often when a resolution or answer is being offered. Voltas or abrupt emotional changes within sonnets are clearly marked by fluctuations in sound choices. In this case the “dismemberment” of 285 sonnets allowed us to understand them better, both individually and collectively.

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Notes.

Note 1. <https://www.poets.org/poetsorg/text/sonnet-poetic-form>

Note 2. <http://www.oxfordreference.com/view/10.1093/acref/9780199208272.001.0001/acref-9780199208272-e-1217>

Note 3. <http://www.gutenberg.org/cache/epub/1041/pg1041.txt>

Note 4. <http://www.sonnets.org/donne.htm>

Note 5. https://www.dartmouth.edu/~milton/reading_room/sonnets/sonnet_1/text.shtml

Note 6. <http://www.gutenberg.org/files/2002/2002.txt>

Note 7. <http://www.gutenberg.org/cache/epub/17650/pg17650.txt>

Note 8. <http://www.sonnets.org/millay.htm>

Note 9. <https://github.com/microresearch/WORM/tree/master/src/english2phoneme>

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