A Study of Some Aspects of Prosodic Phonology in Text Analysis

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Abstract. The main purpose of this paper is to make a systematic investigation of some aspects of prosodic phonology among which are a primary and a secondary stress, a vowel's manner and quality, a voiced versus a voiceless phoneme, etc., to manifest the contribution of such prosodic usages in the text. For data and analysis, some parts of Macbeth's speech have been extracted.

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> and for his issue,
> Whose heavy hand hath bowed you to the grave,
> (III.i.89)[1]

The phonological parallelism in repeating the /h/phoneme conveys a sense of whispering his vile thoughts into the murderers. His emotions come out of the depth of his breast with the alliteration device, as the /h/ phoneme occurs frequently in the above lines. This

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[1] John Dover Wilson. *"Macbeth,"* in *The Complete Work of Shakespeare*, by J.D. Wilson (Cambridge: Octopus Books Limited, 1987), 859-82.

phonological device enhances creating the intended contextual meaning of the equivocal and ambitious word into which Macbeth enters to listen to the voice of temptation.[2]

The framework of prosodic phonology adopted in this paper is mainly the one developed   by Firth which reveals the importance of the function of the carefully selected phonemes and the phonological shape of words or parts of words[3] in creating the meaning in the text.

I. Some aspects of prosodic features

Any phonetic feature characteristic of and peculiar to a certain position can be stated as a prosody of the sentence or a word[4] syntagmatically. An essential part of the prosodic approach is the [abstractness of these features that may be regarded as syntagmatic].[5] The penultimate stress and functional geminations are considered as [obvious prosodic features in syntagmatic junction].[6] Thus, the prosodic approach to phonological analysis requires a fine as well as an extensive range of abstract categories of phonetic observations and several correlated systems of phonetic notation.

Phonetic notation as discussed throughout this paper would follow functional units of patterns as far as possible. What the speaker says does not matter to the subject of this paper as what this character thinks he/she says.[7] The function of a certain phoneme which the speaker uses for a particular style of speech is determined by the context of *Macbeth*. Such particular phonetic units make up the phonetic repertoire. The speaker in the flow of speech uses these units in well-defined phonetic contexts; a certain consonant, for example, may occur initially, finally or intervocalically. It may be preceded or followed by other phonemes, or never finally, or never intervocalically. Special occurrences are traced in the selected text and systematically investigated to recognize their function in their context.

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[2] Henry W. Wells and H.H. Anniah Gowda, *Style and Structure in Shakespeare* (New Delhi: Vikas Publishing House, 1979), 197.

[3] J.R. Firth. "The Word 'Phoneme', and 'The Principles of Phonemic Notation in Descriptive Grammar," in *Papers in Linguistics 1934-1951*, by J.R. Firth (London: Oxford University Press, 1957), 1-6; *idem.*, "The English School of Phonetics," in *Papers*, 92-120; *idem.*, "Sounds and Prosodies," in *Papers*, 121-38; *idem..*, A Synopsis of Linguistic Theory 1930-1955," in *Studies in Linguistic Analysis*, special volume of Philological Society (Oxford: Blackwell, 1962), 15.

[4] Firth, "Sounds," 123.

[5] Frank R. Palmer, "Openness in   'Tigre,' a Problem in Prosodic Statement," in *Bulletin of the School of Oriental and African Studies*, 18 (1956), 561-77.

[6] T.F. Mitchell, "Prominence and Syllabication in Arabic," in *Bulletin of the School of Oriental and African Studies*, 23 (1960), 386-88; Firth, "Sounds," 122-23.

[7] Firth, "Phoneme," 5.

Prosodic features include, besides vocalic and consonantal properties of the phoneme, marked accents, tone, intonation, voice quality, syllable quantity, stress emphasis and pause in versification.[8] Some of the other aspects such as the stressed syllable or the stressed phoneme[9] are referred to whenever required. The term [prominence][10] becomes necessary here as a cover term to include stress (intensity), tone (pitch) and duration (length). To some linguists these same features are considered as suprasegmentals,[11] but this paper follows the prosodic reference to them. However, syllabic[12] is used here to refer to the nucleus which is allotted to each syllable bearing the primary stress.

II. The phoneme

The phoneme, as used in this paper, stands for any functional phonetic unit. It is best exemplified by the following quotation: "The identification and contextualization of the phonemes is of the greatest importance both in the study of words and their forms in morphology, and also in connected word-groups in syntax... the values of the phonemes, and of the signs which represent them, are linguistic values - differential values which are put to morphological syntactical and lexical uses. One absolute pronunciation or independent phonetic value, for each letter by itself, is neither desirable nor practical."[13]

The functional phonetic unit which is contextualized in the selected data is stated and analyzed. The principles of these functional phonemes as the basis in linguistics which gives it a basic role to play and contribute in creating meaning within that context is also determined and discussed.

III. Data collected for text analysis

William Shakespeare (1564-1616) lived in an age of general enlightenment which can be considered as a continuation of the age of revival or Renaissance. People were encouraged by the scientific trend sweeping Europe, having been initiated by the scientifically minded Muslim culture in Spain, to examine facts critically instead of

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[8] Randolph Quirk, "Shakespeare and the English Language,"in *A Reader in the Language of Shakespearean Drama,* essays collected by Vivian Salmon and Edwina Burness (Amsterdam: John Benjamin, 1987), 35:5, Firth, "Sounds," 124-27.

[9] Sanford A. Schane, *Generative Phonology* (Englewood Cliffs, N.J.: Prentice-Hall, 1973), 14-15.

[10] Larry M. Hayman, *Phonology: Theory and Analysis* (New York: Holt, Rinehart and Winston, 1975), 203; Mitchell, "Prominence," 369-88.

[11] Richard A. Hill, "Suprasegmentals, Prosodies, Prosodemes: Comparison and Discussion," in *Language: Journal of the Linguistic Society of America,* 37 (1961), 457-68.

[12] Firth, "Synopsis," 24.

[13] Firth, "The Word Phoneme," 27.

submitting blindly to medieval conventions. Man's place in the universe and his [rights] entailed a certain emphasis which helped create the new ideas against oppression. The comparison of man to the state was [fundamental] to the Elizabethans. The correspondence between the microcosm and macrocosm was steady and man's capabilities, like those of the universe, seemed infinite.[14] Thus, man is the center of Shakespeare's tragic plays, and Shakespeare's concern in these plays is in his character's psychological and physical manifestation.[15] He created his [imagined people] placed in [dramatic context] and [made to act and interact in ways which reveal the interplay of motive and action, both actual and potential, within their double-selves].[16] This character of man can be manifested in the protagonist's speech in *Macbeth* on which our data focuses. The extractions explore the reflections of such phonological and physical references in the functional and phonological units.

IV. Prosodic phonology: data and analysis

Shakespeare resorts to the technique of stressed[17] and unstressed[18] syllables to contribute to the textual meaning:

1 - Methought I heard a voice cry, 'Sleep no
    more!
    Macbeth does murder sleep-the innocent sleep

                                                                    (II.ii. 35-36)

Six stressed syllables appear regularly in each line. The position of the stress varies which may suggest avoidance of monotony and dullness:

2 - Which the eye fears, when it is done, to see.

                                                                    (I.iv. 53)

The stress occurs initially and is prominent on the last two words of each division in the sentence [eye] and [fears] and [done] and [see] which help to reflect ambition created in Macbeth's mind.

Two long lines that rhyme together, used in a long speech in the end of a scene, help to reflect Macbeth's hidden thought:

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[14] E.M.W. Tillyard, *The Elizabethan World Picture* (London: Penguin, 1981), 8.

[15] Wells and Gowda, *Style*, 194.

[16] Ibid., 195-96.

[17] Hayman, *Phonology*, 230.

[18] Bridgest Cusack, "Shakespear and the Tune of Time," in *A Reader in the Language of Shakespearean Drama*, 35: 30-32.

3 - Away, and mock the time with fairest show:
     False face must hide what the false heart doth know,

(I.vii.81-82)

It seems that when complexity starts to develop inside Macbeth, he uses a round and complex vowel /-ou-/ which may help reflect such complexity. This is exhibited in [show] and [know] in the previous example.

The following example exhibits a similar round and complex vowel:

4-   No boasting like a fool;

     This deed I'll do before this purpose cool.

(IV.i.153-154)

The complex vowel /-u-/as in [fool] and [cool] bears the main stress.

Macbeth's thoughts and emotions are disturbed. His moral degradation is expressed not only in the words, the syntax and the semantics, but also in the sounds:

5 - And wears upon his baby-brow the round
     And top of sovereignty?

(IV.i.88-89)

In [round] and [top] the usage of the round vowel is repeated with a different quality; a diphthong in [round] and a short and lax one in [top], suppressed by the occurrence of the voiceless plosive /p/ at the end. This usage functions to enhance the confused manner of Macbeth. It means that Macbeth is now in a vicious circle.

The following example exhibits another kind of difference in the vowels used. This time unrounded, long and short ones, bearing the primary stress, and occurring finally to rhyme together:

6-   That will never be;
     Who can impress the forest, bid the tree.

(IV.i.95)

The change from rounded to unrounded vowels enhaces the intended ambition of Macbeth's feelings of guilt, uncertanity, insecurity and fear.

Macbeth's self passion is being developed and enhanced and can be manifested in
the following speech:

7 -   That shake us nightly: better be with the dead,
        Whom we, to gain out peach, have sent to peach,
        Than on the torture of the mind to lie
        in restless ecstacy.

                                                                    (III.ii.19-22)

Usage of voiceless consonants occurs here to convey Macbeth's feelings which he does
not intend to reveal. The consonants /š/&/k/ in [shake], /-t/ in [better], /p/&/s/in [peace],
which occurs twice, /s/&/t/in [sent], /t/&/č-/ in: [torture], and /s/,/t/&/s/ in [restless]
together with the unrounded vowels, the lax /e as in: [better] or the tense /i/ as in: [dead]
function to develop the manner of Macbeth's self passion which he does not want to
reveal.

Macbeth is crushed by his crimes. His self-hood is altered or diminished, and
instead of his real self, an ambitious man has become inwardly null and tired:

8 -   : my way of life
        Is fall'n into the sere, the yellow leaf,
        And that which should accompany old age,
        As honour, love, obedience, troops of friends,
        I must not look to have; but, in their stead,

                                                                    (V.iii.22-26)

The conflict in Macbeth's manner is reflected in the irregular stress that occurs initially,
the syllabic usage as in [fall'n] (line 23) and the irregular vowel quality. A similar point
is exhibited in the following example:

9 -   This supernatural soliciting
        Cannot be ill; cannot be good. If ill,
        Why hath it given me earnest of success,
        Commencing in a truth? I am thane of Cawdor.
        If good, why do I yield to that suggestion

                                                                    (I.iii.130-134)

This part of the text is a soliloquy which helps to reflect the conflict in Macbeth's
inner and outer feeldings and manners. The usage of [ill] twice in one line, and [good]
parallel to [ill] suggest they are said at one sequence and thus the contrast is direct. The
unrounded /i-/ in [ill] versus the rounded /-o-/ in [good] may contribute to present this

conflict in Macbeth's manner. Moreover, intonation in this part would predominate the meaning the prosodic usage to enhance the perplexity of Macbeth. It starts with a sustained stress, then the intonation rises in the following line [131]. It rises more in the following line and a half with the utterance of the question. In the same line [133] the intonation becomes sustained in the statement: [I am thane of Cawdor]. Then the intonation in line [134] rises by the use of [why] to express the meaning implied in [horrible imaginings].

In a general sense, the intonation as discussed above fluctuates between raised and sustained. This may enhance the creation of an unstable manner which Macbeth has at this stage in his inner and outer feelings. The usage in the following text reflects the feeling of desire and emphasis inside Macbeth:

10 - If chance will have me king, why,
     chance may crown me,
     Without my stir.

<div align="right">(I.iii.143-144)</div>

His expressed feeling implies a reference to a thought of killing King Duncan and makes him feel guilty as well. It suggests here that the usage of the voiceless and hissing phonemes in [chance] uttered twice: /č/and/s/, /h-/ in [have], /k-/ in [king] and in [crown] and /s-/in [stir] may contribute to creating such feelings inside Macbeth. Macbeth's ambition is still expessed in the last part of the play:

11-   I will not yield,

     To kiss the ground before young Malcolm's feet,
     And to be baited with the rabble's curse.
     Thought Birnam wood be come to Dunsinane,
     And thou opposed, being of no woman born,
     Yet I will try the last.

<div align="right">(V.viii.27-32)</div>

Macbeth's speech here is the brilliant and brave speech of a man who is like a bright flame extinguished before it is out.[19] The prominent stress and voiced consonants expressed in: [will, yield, ground, etc.] contains a phonological device which does not allow enough air out of the lungs. Voiced plosives are as: /g/ initially in [ground] and /b/ mainly initially as in: [before, be, baitd, rable, Brinam, being, born], and /d/ mainly finally as in: [yield, ground, And, wood, and Dunsinane]; and voiceless plosives as:

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[19] Wells and Gowda, *Style*, 204.

/p/and/t/ as in: [not, to, opposed, yet, try, last]. It comes out rather stronger for the voiced and plosive consonants occuring initially and finally, and the tense vowels which enhance the manner of expressing the bravery and struggle of Macbeth.

The scene of the coronation feast in act three reflects the ironic visual counterpart of this feast by the appearance of Banquo's ghost and then by the departure of the guests. The difference in Macbeth's character which started with his first meeting with the witches is emphasized here. There is also an intensification of evil. This dramatic device is reflected in the language of Macbeth. To cite but one example from this act, the following speech is a good one:

12 - What man dare, I dare:
       Approach thou like the ruggéd Russian bear,
       The armed rhinoceros, or th'Hyrcan tiger,
       Take any shape but that, and my firm nerves
       Shall never tremble: or be alive again

                                                                      (III.iv.99-103)

The disturbed stress discussed above by example [9], is also noticed here. It occurs sometimes initially as in [ruggéd], finally as in: [approach] or mid-position as in: [rhinoceros] which may also reflect the irregularity in Macbeth's thought. The first line number [99] has four primary stresses with their prominent syllables. The second line number [100] has five, the third has four prominent stresses, the pre-final line number [102] has six stressed syllables, and the final line number [103] contains five primary stresses, as shown on the specimen above.

In the Banquet scene the following image is scattered by the usage of particular phonemes:

13 - But now I am cabin'd, cribb'd, confin'd, bound in
      To saucy doubts and fears.

                                                                      (III.iv.24-25)

Macbeth is enslaved to doubts and the use of the plosives: three /k/s, four /b/s, five /d/s and three /t/s in only two lines impresses the ear with a sense of disturbance, roughness and difficulty implied in the general atmosphere. The plosive manner may help to create these senses.

A similar phonological structure is contained in the following specimen, which has an image connected with animals, when Macbeth talks to his wife about his fears concerning Banquo,

14 - We have scorched the snake, not killed it:

(III.ii.13)

Besides the harsh image[20] evoked by the above line, there is also a specific phonological device which helps to emphasize the predominant tone of the rough image. This is the occurrence of the plosive consonants - both voiced and voiceless in one line: three /k/s, two /d/s and two /t/s which communicates the roughness of the metaphor.

When Macbeth is talking to one of the murderers, his emotions grow firm and are expressed in the following:

15-   .., and for his issue,
         Whose heavy hand hath bowed you to the grave

(III.i.89)

There is a phonological parallelism in repeating the /h/ phoneme bearing a prominent stress, which conveys a sense of the way Macbeth talks to the murderers as if whispering his vile thoughts into them.

A final example refers to the beginning of the play where a soliloquy seems to provide a full view[21] of his inner self. These two lines contain a phonological device which may contribute to the contextual meaning:

16 - If it were done, when 'tis done, then 'twere
      well It were done quickly: if th'assassination

(I.vii.1-2)

The explicit assassination with its hissing sibilants shows Macbeth's straying away from the natural path to the horror of hell. The hissing phoneme /s/, is used three times; the whispering included in the voiceless phonemes: /f/, /t/, and /k/ are repeated many times which may add to the meaning and gives variety to the phoneme usage. This is besides the frequent occurrence of the voiced and continuant glide /w/ which is remarkably repeated. It functions to enhance the act of whispering, the very word which

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[20] Martin Orkin, "VII. The Linguistic Context of Shakespearean Drama: The Poor Cat's Adage and Other Shakespearean Proverbs," in *A Reader in the Language of Shakespearean Drama*, 35: 492-94.
[21] Daniel Jones and A.C. Gimson, *Everyman's English Pronouncing Dictionary* (London: Dent, 1967).

starts with the same glide /w/ too. This phonological device may imply that it is only the time and method of the killing which are in doubt; the assassination itself is evidently now for him a fact.

V. Conclusion

Shakespearean language is highly poetic and involves prominent phonological devices which present a good example for text analysis. He was not concerned with the creation of real human beings as much as with the textual effect. Shakespeare employed language in a way which is not usual for the making of direct statements in prose or verse. Fixed stressed and unstressed syllables are generally followed in the lines of verse. And the rhythm depends on a fixed number of stressed syllables in a single line as an effective phonological technique. The paper exhibits this, as in example number [1] above,

Methought I heard a voice cry, ...;

(II.ii.35-36)

Then, the stress varies when the dramatic context varies and Macbeth's thoughts seem disturbed and irregular, as in example number [12] above,

What man dare, I dare ...,

(III.viii.99-103)

Another prosodic feature exhibited in this paper is the vowel quality and place of articulation. Complex and lax rounded and unrounded vowels function dramatically to enhance the intended meaning. Example number [4] above shows the usage of the complex rounded vowel /-ou-/ in [boasting], and /u/ in [fool] and [cool] (IV.i.153-154) bearing prominence, where Macbeth hides his real self..

Rounded and complex vowels may contribute in reflecting Macbeth's disturbed thoughts and emotions. The voiceless plosive consonant following the lax rounded vowel in [top] (IV.i.88-89), as example number [5] above shows may enhance the reflection of the moral degradation and the confused manner of Macbeth.

Usage of voiceless consonants involving the sense of hissing and whispering occurs as in example [7] above to convey the inner manner of Macbeth which he does not intend to reveal. Consonants like /š,k.t,p,s/ and /č/ together with rounded lax or tense vowels may contribute to Macbeth's self-passion as intended in the context.

The fluctuation of the raised and sustained intonation is another technique in prosodic phonology to which Shakespeare resorts. Example [9] above exhibits this fluctuation where it involves the conflict between Macbeth's inner and outer selves.

The particular usage of the voiceless hissing sibilants by uttering [chance] twice as in (I.iii.142-146), and the occurrence of the grave continuant voiceless /h/ and other voiceless consonants help to contribute in expressing Macbeth's inner feeling of killing Duncan, as discussed in example [10] above.

The voiceless consonant /h/ is exhibited in another instance as example [15] above presents it. The phonological parallelism in repeating /h/ involves emotions coming out of the depth of Macbeth's breast.

دراسة لبعض الظواهر في علم الصوتيات العروضي في تحليل النص

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ملخص البحث. يتعلق الموضوع الأساسي لهذا البحث بدراسة منظمة لبعض ظواهر علم الصوتيات العروضي، ومن هذه الظواهر النبر الأساسي والنبر الثانوي ونوعية الصائت وطريقة النطق به والفونيم المجـــــهور والمــــهموس... إلخ. وذلك لإظهار مدى إسهام مثل هذه الاستخدامات العروضية في التعبير عن المعنى في سياق النص. واتخذت أجزاء من كلام بطل مسرحية "ماكبث" لشكسبير كمثال لبيان ذلك.