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A Re-Evaluation of the Vocal Philosophy of Dr. James Rush as Based on a Study of His Sources.

Lester Leonard Hale
Louisiana State University and Agricultural & Mechanical College

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A RE-EVALUATION OF THE VOCAL PHILOSOPHY

OF DR. JAMES RUSH

AS

BASED ON A STUDY OF HIS SOURCES

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Speech

By

Lester Leonard Hale

B. A., University of Wisconsin, 1934
M. A., Louisiana State University, 1935
June, 1942
To

Dr. Giles W. Gray

for his inspiration and continual assistance in the preparation of this manuscript,

and to

Dr. Claude E. Kantner

for his counsel and teaching, and for his guidance as my major professor.
"In the time of the world, a natural day (night included) is a single cadence; the setting and rising of the Sun are the thesis and arsis; seasons and years are rhythmical clauses: the real beginning and the ending of this melody are out of our sight; but to human apprehension, the apparent are birth and death, and life is our part in the song."

Sir Joshua Steele.
ACKNOWLEDGEMENT

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ABSTRACT

Believing that Dr. James Rush's Philosophy of the Human Voice has exerted a greater influence on present day trends in the teaching of speech than is commonly acknowledged, the writer began this research in an effort to trace the teachings of Rush from his first publication in 1627 through to modern literature. To insure that such a study would involve only the principles that truly belong to Rush, it was found necessary to ascertain what Rush's basic philosophy was, and how much of it was original with him.

As attempts were made to attribute definite concepts to Rush's invention, the problem became more involved, and an increase of evidence revealed a need for broader study of the Philosophy itself and of the literature which preceded it. Then, too, it was discovered that James Rush's personal library was intact, with all the books and papers he had possessed. That these would lend considerable light to a re-evaluation of Rush's vocal philosophy was obvious; hence it was concluded that before the first study should be undertaken, his Philosophy should be re-examined in view of these and other available source materials.

Although Rush is considered one of the early American pioneers not only in the field of speech, but in psychology as well, there has previously been little effort to discover precisely what Rush believed. It is hoped that this research will fill the need for a revelation of his true meaning.

In attempting to make accurate judgments of Rush's concepts, other publications of his were examined, particularly The Analysis of the Human Intellect. Although this book was not published until 1865, it had been
begun in 1618, eight years before Rush completed his work on the voice. It was in formulating his ideas concerning the intellect that he had seen the need for describing vocal phenomena; the vocal Philosophy, therefore, became Part One of his analysis of the Human Intelect. An understanding of the fact that the Philosophy of the Human Voice was an outgrowth of this study of the mind, and an outgrowth of a general physiological approach to both the mind and the voice, is essential to an understanding of his true concept of vocal analysis.

To compare Rush's writing with that of his predecessors, careful study was made of the publications of John Mason, 1748; Lord Monboddo, 1774; Charles Avison, 1775; Sir Joshua Steele, 1775; William Cookin, 1775; John Foster, 1761; Henry Home of Kames, 1763; Thomas Sheridan, 1765; John Walker, 1781; James Burgh, 1781; Ebenezer Porter, 1824; and Jonathan Barber, 1825. These are only the more important of the authors whose writings have contributed to this study.

Perhaps the most unusual source material utilized is Rush's personal notations in the margins of his own copies of the books in his library. Much light is thrown on Rush's attitude toward certain writers and their beliefs by his caustic criticisms, and by his occasional eager agreement. Newspaper comments, and material in unpublished manuscripts of Rush also aided in the fuller understanding of his work.

In addition to a chapter on historical and biographical background, and an Appendix which includes an unpublished section from the second edition of the Philosophy called "To the Reader," found in the Printer's Copy to that edition, this study includes the answers to two main questions:

First, what were Rush's reactions to previous studies on Voice?
Second, in the light of his sources, how may Rush's analysis be re-evaluated to show: (a) his basic philosophy; (b) his original contributions; and (c) his adaptation and use of the previous studies of the voice?

The first question is answered to the effect that Rush thought almost all previous writers based their observations on insufficient data, and treated only portions of the voice system. However, Rush accepted and used any existing concept that seemed in his judgment to be sound.

Each part of the second question is answered separately. In substance the answers reveal that Rush's basic philosophy is the result of physiological inquiry into, primarily, the functioning of the mind, and secondarily into the expression of the voice. The resulting system, in addition to proving that such an analysis of voice and mind could be made, furnishes a plan for the training of the mental power to observe nature and the general capacity of vocal expression. Rush's original contributions are associated mainly with his concept of the "Radical and Vanishing Movement," but include in particular a clarification of nomenclature, a doctrine of syllabication, a system of alphabetic elements, and a belief in the specific interval of inflection. Other concepts, such as those concerning accent, quantity, rhythm, cadence, pause, pitch, quality, force, and emphasis, are not original with Rush, but are adaptations of the ideas set down by his predecessors.

The answering of these questions produces several by-products which indicate the significance of the present findings. It is seen that the original contributions of Rush are not the concepts for which he is noted today; it is shown that Rush is accredited with originating certain concepts which this study reveals to be only adaptations of existing
ideas; and, it is demonstrated that Rush is not properly understood today concerning his belief that Elocution should be taught by training the mind to greater observation of natural phenomena, and that only by training the voice to potential capacity for elocution can actual vocal expression be a true tool of nature.

This research has undertaken to evaluate Rush's more profound philosophy and his basic concepts. It shows that many vague present-day interpretations of his teachings are based on sketchy, inaccurate ideas of his "system." It is an effort to present a faithful and unprejudiced evaluation of Rush, designed to provoke a more intensive study and appreciation of his Philosophy of the Human Voice.
PART I

INTRODUCTION

Chapter 1. General Aims of This Research

Chapter 2. Historical and Biographical Background
PART I

INTRODUCTION

Chapter 1

General Aims of This Research

No one will deny that Dr. James Rush was one of the greatest of early American pioneers in the field of speech. And yet, strange as it may seem, comparatively little is known today of his true philosophy and his basic contentions. He is quoted often to give authority to modern pedagogical techniques, and at the same time he is also ridiculed for having developed an impractical system of elocutionary instruction. Likewise, teachers who either openly or subtly reject Rush, or who do not acknowledge him at all, are teaching the very elements which he analyzed, arranged and developed.

The Philosophy of the Human Voice\(^1\) is now a rare volume prized by any speech teacher interested in old books. However, in the many issues of the Quarterly Journal of Speech in which the "Old Books" section appeared, there has never been a review of Rush's text. Nor has there ever been an article in the Journal on Rush or his work.

Furthermore, no research has been reported that has sought to investigate his philosophy thoroughly. Much of the modern interpretation of Rush is based upon material handed down through generations of

\(^1\) James Rush, The Philosophy of the Human Voice: Embracing Its Physiological History; Together with a System of Principles by Which Criticism in the Art of Elocution may be Rendered Intelligible, and Instruction, Definite and Comprehensive. To which is added a Brief Analysis of Song and Recitative (Philadelphia: J. Maxwell, 1827). (Hereinafter cited as Philosophy).
teachers and students. The result is that many of his basic original contributions are absent from modern texts in speech. Also, many statements are attributed to Rush that cannot be found in his writings, nor can his writings be interpreted to mean what he is said to have meant.

For example, in a recent speech text can be found the following:

Most discussions of quality include the classifications of the various types of quality, usually eight, according to the list first made out by Dr. James Rush, an early pioneer in speech work. Deliberate application of these types: aspirate, guttural, pectoral, nasal, oral, falsetto, normal, and orotund, was of considerably more use to the old student of elocution than it is to modern students of the "natural" method.2

Since Dr. Rush projected basically only four different sorts of vocal quality, viz., natural, falsette, pure tone (orotund), and whisper (the guttural tone was referred to only incidentally as a defective sound), this statement appears immediately to be a misconception.

In the beginning of this research it was at first thought that a study should be made which would attempt to show what principles of Rush are actually being taught today. But it was soon discovered that there was no way of knowing what principles were actually original with Rush. Before his influence could be traced, it seemed imperative that more be known of his fundamental philosophy.

To discover this would involve not only an analysis of his own writings, but a comparison of them with those of his predecessors and contemporaries. Abandoning the project, therefore, of showing in detail the relation of Rush to present literature, this investigation aims primarily at an examination of Rush's philosophy itself.

An attempt has been made to present here a thorough, unprejudiced, and complete account of Rush's contribution to the study of speech, and one which will serve as a foundation upon which other comparisons can be based.

In doing this, all seven editions of his Philosophy have been used. In many quotations, reference is made to several editions for the sake of comparison. Obviously, the first edition is taken as a core, but whenever there have been major alterations in the original text, reference has been made to the edition in which the change appeared. In addition to his Philosophy, other of his writings which are pertinent to an understanding of his philosophy of voice have been analyzed, along with the books of earlier and contemporary writers. Furthermore, newspaper commentaries and unpublished papers and manuscripts have been employed to gain a better perspective of Rush personally, and to help clarify his literary, medical, and philosophical position.

Chapter Two of Part One presents a historical and biographical background which is essential for an appreciation of much that is to be said later. There were circumstances of Rush's life that, when recognized, throw much light on a study of his vocal analysis. This chapter also gives a brief resume of his publications and the reception accorded them.

Part Two is intended to clarify Rush's basic philosophy. What was his chief object in writing such an elaborate text? How did he propose that elocution should be taught by his system? In his analysis of voice, was he describing natural phenomena, or prescribing rules? As a Doctor of Medicine, what authority could he claim in the practice of elocution? These are some of the questions which Part Two attempts to answer.
In Part XIX is developed a statement of what can be considered Rush's entirely original contributions to the field of speech. The list seems small in view of all he is credited with having taught. However, limiting his inventions to so small a group of ideas does not imply that his treatment of the remaining elements was devoid of originality, or lacking in significance. In keeping with the effort to clarify his philosophy, however, the error of giving Rush credit for discoveries which he did not make, or principles which he did not originate, must be carefully avoided.

Part Four, on the other hand, traces to their sources (or at least to previous writings) those remaining concepts of Rush's philosophy which were not actually introduced by him. If these ideas were not new with Rush, it should be of interest to know where and how they existed before his treatment of them. With such information, it would then be possible to determine more fairly the historical beginnings of our modern analysis of speech.

While tracing these elements to writers earlier than Rush, it is the further aim of Part Four to show how Rush was led to certain beliefs by his study of existing opinions and controversies. It may also be of interest to observe how these theories of Rush's predecessors were colored and modified by his own philosophy.

Part Five offers a brief résumé of the chapters in each division, and attempts by way of conclusion to answer two major questions:

1. What were Rush's reactions to previous studies on voice?

2. In the light of his sources, how may Rush's analysis be re-evaluated to show:

a. What his basic philosophy was?
b. What his original contributions were?

c. What concepts presented by Rush existed prior to his first publication and how did he modify them to fit his own philosophy?
Chapter 2

Historical and Biographical Background

Because Rush has been recognized as one of the most important early pioneers in the field of speech, it would seem that a study of his Philosophy would do well to include a biographical sketch. This chapter, therefore, presents such information as can be gleaned not alone from biographical dictionaries, but from newspaper editorials, unpublished manuscripts, and other sources. It in no way attempts to give a complete account of his life, but it does aim to give some insight into his personality and character, especially as it has a bearing on the circumstances of his various publications.

The particulars of his noted ancestry are most interesting, but these can be quickly obtained from any good biographical source. He himself was the seventh in a family of thirteen children. His father, Dr. Benjamin Rush, was a noted scientist and physician, author of many volumes on medicine. The Rush Medical School of Chicago was named after him. His mother, Julia Stockton, was the daughter of Richard Stockton, who, like James' father, was a famous man—both were signers of the Declaration of Independence. James Rush's elder brother, Richard, also became quite noted as a lawyer and orator.

Biographers differ on the date of James Rush's birth; some say March 1, and others March 15, of 1786. He attended the College of New

---

Jersey (Princeton), receiving his degree in 1805; in 1809 he received his M. D. at the University of Pennsylvania. After two years of medical study in Edinburgh, he returned to Philadelphia to practice.

In 1819 he married Phoebe Anne Ridgway, "an heiress, owner of one of the finest houses in that city [Philadelphia], and a brilliant and popular member of society." He gradually left active medical practice and devoted more and more of his time to his studies of the mind and voice. He became the author of three books, other than his Philosophy: Hamlet, A Dramatic Interlude, 1854; The Analysis of the Human Intellect, 1865; and Rhymes of Contrast on Wisdom and Folly, 1869.

Rush died in his old home on Chestnut Street in 1869, a childless, embittered recluse. His wife had expired twelve years before him. At his death their combined fortunes, according to the terms of his will, were left to the Library Company of Philadelphia.

James Rush did not want for sound fatherly advice. As he started out on his own career, his father wrote some instructions to him. These were preserved, and in a memorial written for Benjamin Rush they were quoted.

In the instructions to his son one was to "keep a journal from the day you leave Philadelphia, in which insert all the physical facts you hear in conversation, the companies you go into and interesting matters you hear in them, with the names of each of them when small and select." He was enjoined to avoid lodging houses where there were handsome young ladies, to observe

religious habits, and to converse as much as possible with physicians. On the value of character the old gentleman was emphatically and almost painfully insistent. He exhorted him to remember "the saying of Israel Pemberton to your father in 1766: 'keep older and wiser company than thyself,' also of George Dilwyn to B. Chew Jr., 'remember thou hast a character to lose.'"

In 1900 an anonymous columnist wrote for James Rush a most interesting memorial which tells some of the personal aspects of his life more vividly than they could be restated. Excerpts from this are therefore included below.

The eccentricities of "Madame" Rush have more than once been a theme of our daily tasks. Her unconventionality, her sense of independence, her freedom of speech, her originality, her imperious deportment and yet also her familiar, generous ways with men and women of all ranks, made her the most remarkable "character" of her sex in Philadelphia. But hardly less eccentric, although in a much less obtrusive way, was the husband with whom she linked her fortunes. His tastes and temperament, shrinking from the vanities of social aspiration and the glare of fashion, were in almost everything exactly the opposite to those of his robust, pleasure-loving and accomplished wife. He was seldom a figure in the great entertainments with which she dazzled the town. They lived under the same roof, he with his books and a few cronies, she with her drawing room and "salon," and the dashing beaux and belles who acknowledged her arbitrary sway.

Dr. James Rush was a man of no inconsiderable scholarship and not without the faculty for original investigation and well ordered expression. In his youthful days he had been regarded as one who might make himself not unworthy of so eminent and public spirited a father as Dr. Benjamin Rush, and the fame of that distinguished physician and citizen was an incentive to his ambition. . . . Indeed, it was only a few years after his marriage to the daughter of millionaire Ridgway, and when he was about thirty eight years old, that he completed and published a book which, aside from his relation to his spouse, has alone given him a distinct identity to posterity. This was "The Philosophy of the Human Voice" — a work which has been time and again pronounced in both this country and in England to be the best analysis ever made of the human vocal power and the best work on elocution in the language. . . .

The ambition to be recognized as a man of letters or as a philosopher was one of the chief traits of the Doctor's character. He wanted to be known as something more than a bookworm with a rich wife. It was a disappointment to him that he did not obtain, outside of the early reputation which the "Philosophy of the Human Voice" gave him, the recognition which he believed his abilities deserved. This failure doubtless had much effect in turning him into the recluse that he was naturally inclined to be and in imparting to his views the air of one who was out of joint with his time.

Doctor Rush, despite his many infirmities of thought, was a gentle and good man, but all his "philosophy" could not save him from the vagaries which amused and sometimes annoyed the men of his day, but which now call forth only a smile of good natured compassion.7

Perhaps one of the most important points to remember out of this editorial is the effect his failure to become a great literary figure had on the later years of his life. Each new criticism he received from the public made him lose faith in society's ability to understand scholarly and scientific achievement. The bitterness of his prefatory remarks in the later editions of the Philosophy are indicative of his distorted point of view.

Although he lacked literary followers, James Rush seemed to have been highly respected as a medical practitioner. This is evidenced by the large number of letters written him asking for medical advice and expressing appreciation for past successful treatment. His entire approach to the matter of voice seems to have been an outgrowth of his very serious and philosophical attitude toward his medical profession.

His first projected book actually was The Analysis of the Human Intellect, begun in 1818. It was while trying to formulate his order of the human mind that the matter of the vocal expression of thought

presented itself as an important element in his original project.\footnote{See Chapters 3 and 4 for full explanation of the conception and development of his publications on mind and voice.} The more he became intrigued by the powers of voice and their complicated but apparently observable and arrangeable symbols, the more he felt the necessity of describing his observations of these vocal signs of the intellect before he could proceed with his general philosophy. In 1633 he recorded some notes called "Remarks on the Human Voice in Reading." This marked the beginning of a more concentrated and systematic effort to study the voice. He began to analyze existing literature carefully, and when he found all previous writers at odds both as to terminology and theory, he set himself to make his own first-hand observation of speech as he heard it. Thus he tried to free himself from the bondage of existing falsity and confusion.

In 1826 he was ready to publish the results of his labors and in 1827 appeared The Philosophy of the Human Voice. Reactions to this book were at great variance with each other. By a few teachers such as Jonathan Barber, the Philosophy was held to be an unprecedented triumph in vocal analysis. On the other hand, Barber himself suffered great social and professional reverses because of championing and even associating with a man whom society did not greatly respect.\footnote{See Appendix A.} But in his Exercises for Reading in 1823, Barber had already presented a vocal philosophy that agreed almost entirely with what Rush proposed, and the two writers were immediately attracted to each other. In fact, Rush attributed a large part of the Philosophy's early success to Jonathan Barber. Others who gave hearty reception to this new analysis of Rush
were John Barber, the younger brother of Jonathan and a lecturer in elocution in the city of New York; Samuel Gummere, then a principal of a school in Burlington, New Jersey; a Mr. Dennison, an Irishman and teacher in Philadelphia; Dr. Andrew Comstock, a physician who had established himself as a teacher of elocution in Philadelphia; and William Bryant, a clergyman of the Episcopal church.

In addition to the following of teachers who had understood the Philosophy and were faithful to Rush, there were those who either through ignorance had misinterpreted him, or who wished to capitalize on his "system" by simplifying it for school use. There was a demand for simple elocutionary texts, and Rush's analysis furnished a good source for abridgements. It is probably through these unauthorized and often faulty restatements of Rush's philosophy that much of the present day misinterpretation of his theory has been handed down.

Several books that employed principles obtained directly from the Philosophy did not even give credit to their source. In 1828 the Rev. W. B. Lacey published a book called *Elocution*\(^\text{10}\) in which there is apparently a direct theft from Rush. Although the material of the book is almost identical in places with discussions in the Philosophy, there is no acknowledgement of any use of the Rush analysis. However, in the copy of Lacey which Rush had in his possession, there are some interesting penciled notations. The copy is autographed by Lacey, indicating that it may have been a gift to Rush from the author. The penciling does not appear to be in Rush's hand, but rather that of Lacey. On the title page there is a note referring to a later penciled comment which indicates ideas

and principles that were taken from Rush's book. It is merely conjecture
to say that after Rush had written an objection to Lacey, the latter had
sent this book with corrections to acknowledge his indebtedness to Rush.
However, apparently that was what had happened. Rush may be referring to
this writer in the objection he raised in the preface to the fifth edition
of the Philosophy.11

Another book called The N. A. Reader, by Lyman Cobb, written in
1856, made quite obvious use of Rush material without mention of the
Philosophy. 12 This book is almost entirely exercises, but what observa-
tions there are on good reading are identical with principles described
by Rush.

But the most startling of all such plagiarisms is one made by a
writer whom Rush refers to as the "Tutor in Elocution." The "Tutor" was
Richard Cull, and his book was Garrick's Mode of Reading the Liturgy of
the Church of England. 13 Rush has numerous comments in his copy of
Cull's book which show clearly his reaction to the whole affair. Some
of these are pictured in the photostatic copies of several pages of
Cull (Photostats Nos. 1 and 2). In still another place besides those
pictured, he asks Cull where he got the term Wave, which is used throughout
that discussion. He also asks about the Concrete. Several places Rush
mentions that Cull has copied either from him or from Steele or Walker,

Edition, 1869), xvi.


13. Richard Cull, Garrick's Mode of Reading the Liturgy of the
Church of England (London: John W. Parker, 1840), (Rush's personal
copy).
(The study of the occasions for emphases led to that of the precise objects in giving emphases, and this leads to the study of the material of emphases. Accent or stress of voice, is commonly thought to be the only existing means of emphases. The means however are not so limited, but extend to the employment of every vocal property which can distinguish one syllable from its fellows in discourse. The material is the voice, and every variety of Pitch, Loudness, Quality, and Duration, can be employed for that purpose. Thus take the vocal pitch; the path of the voice in the gamut during reading and speaking is both by sliding through and by skipping over its intervals. Now any deviation from the general course of intervals attracts attention, and thus gives emphasis to the syllable on which the deviation is made. When the speech-melody is in the diatonic scale the progression both of slide and skip is made by intervals of a tone; then the occurrence of wider intervals, as thirds, fourths, fifths, &c., whether slide or skip, produce emphases. And the occurrence of lesser intervals, as the semitone, will also confer emphases. Thus it is evident that the varieties under the distinctions of pitch, alone supply a vast fund of material
ON PUBLIC READING.

The human voice is the material of expression, as indeed it is of all speech. It will be perceived, that the degrees and their combinations of vocal sound under the generic heads of pitch, loudness, quality, and duration, will produce an almost inexhaustible variety in the means of expression and emphases. And when it is considered that each of the almost infinite number of mental states, emotion and emotion, is expressed by a sound, it is evident that the human voice has a potential for producing an almost infinite variety in the means of expression and emphases.

Quality of voice is another material of emphases. Duration is another. Besides these, a change in the rate of utterance, and the occurrence of rests or periods of silence, are additional means of emphases, at the command of those who will study their expressive powers in speech.

The sculptor, painter, and musician, proceed in this way; they each analytically observe their own department of nature in order to discover the separate elements and their special functions, that they may re-combine them and produce statues, paintings, music. If, like other artists, we collect positive and exact knowledge of the science on which our art depends, and observe the separate elements and their special functions, that we may re-combine them, we shall give to the art of reading a precision and certainty which will entitle it to the same consideration as the other fine arts of sculpture, painting, and music.
but he says about the Concrete and Wave, "Where did you get that term? Steele and Walker do not use it."14

Thus Rush had obvious reason to be incensed by such plagiarisms. These and the ridicule of such a large majority of his readers no doubt contributed to the embitterment of his later years. And yet, he was spurred by the complete acceptance of his theories by a faithful few, and he was confident that his analysis was sound. He therefore enlarged, developed and clarified his work through six editions. The seventh was published by the Library Company of Philadelphia ten years after his death.

In 1865, the year before the sixth edition of the Philosophy, Rush completed his work on the Analysis of the Human Intellect. Like his work on the voice, this treatise on the mind was difficult to accept because of its complicated structure. It is not in point to try to explain the Human Intellect, though brief reference will be made in the next chapters to its major arrangement and its relation to the physiology and psychology of speech. In the introduction to this book, Rush says somewhat bitterly that he gave the public fifty years to understand the Philosophy of the Human Voice. Since that period had almost elapsed by the time the Analysis of the Human Intellect was published and the acclaim that he felt was its due had not yet been approached, he said he would give the public three hundred years to understand this new and more elaborate work. He says:

Nearly forty years ago, the Author gave the magisterial pretenders to intelligence, fifty years, to comprehend the First or Vocal Part of this work. He finds, he mistook their capacity. On this Second Part, he will be more liberal; for as it uproots

so many of the notions, habits, and prejudices of the narrow and stringent Lawgivers of Thought, he here allows them three hundred years, to clear away their piles of rubbish, and to try to reconcile themselves jointly, both to the First part and to it.  

Some mention should be made of the public's reaction to Rush's publications. The reception accorded the Philosophy has already been referred to in the quotation immediately above. Concerning Hamlet, an excerpt is included here which is drawn from a newspaper clipping available at the Library Company of Philadelphia. This clipping was not labeled and its exact date and place of publication cannot, therefore, be determined.

"His wavering thoughts are so akin to Lunacy
'That their tide as creature of the moon leads
'Either way alike.' Act 2, Scene 2.

This singular and most novel production can but raise the marvel if there be a living creature whose brain is inflatulent that could crowd together such a mass of 'high, huge, rough, deep, black, and bleak' words, phrases, absurdities, intanglements, of bombast, mock poetry, doggerel (sic), rhyme and balderdash. The largest premium might be safely offered to all the uncracked world who for a task should write such a gasonading tirade of vulgarity (sic) and abuse. -- None but he whose 'perpetual lamp is the sepulchre of merit' could claim public authorship to this scarecrow -- 'Prelude.' It is called 'Dramatic' and apes the business of releasing truth from error, sophistry, and deception; and in all that is conceited, selfish and bullying, it outstrips 'Single Hooting, shame stars, brazen face, and sets e'en impudence himself aghast.' It aims at the unmasking pride, pedantry and hypocrisy and is ridiculously sublime in all that can distort reason, truth and honor. It professes candor, fairness and virtue, and outrages all that can be profane, by friendship betrayed, hospitality abused, civility insulted, and religion desecrated. The sacred institutions of our country, the venerable and venerated halls of science, and the priceless charities of the 'peaceful city,' and their unobtrusive patrons and conductors are rudely dragged into this author's Golgotha, and there loaded with his most savage and

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*Beginning with the Fifth Edition, 1855, of the Philosophy, Rush attempted to introduce the double comma as a punctuation mark to be of value between a single comma and a semi-colon.

pointed venom. His, and his country's fathers and the distinguished compatriots in science, philanthropy, and arms of his honored Sire are here held up to public scorn, vile detraction, and bitter sarcasm, and in unmeasured ribaldry made parties to the coarse buffoonery of a blasphemous, obscene and scandalous 'dramatic prelude.'

The author of the memorial to Dr. James Rush was much less cruel in his criticism of Rush's writings, just as he seemed more kindly toward his entire life and personality. The following comments give a little indication of the reaction to the Analysis of the Human Intellect, and to the Rhymes in Contrast. In referring to Hamlet and the Human Intellect, this writer says:

It was in the pursuit of such studies as these that the mind of the doctor, which was strangely out of touch with everybody and everything around him, reached his well known observation on newspapers as "vehicles of disjoined thinking," and, therefore, unworthy of admission to a public library. Indeed, he realized his isolated position toward his fellows and his failure to make an impression upon them, although he continued to the end to regard himself as a calm and dispassionate sage who rose high above the passions and prejudices of his day. It was in this spirit that he wrote in the last year of his life what he called, "Rhymes of Contrast on Wisdom and Folly; . . ."

It is quite obvious that Rush lost what popularity he had with the public not long after his publication of the second edition of the Philosophy, for it was only a year later that he presented society with the bitter sarcasm of Hamlet. Whether or not the public resentment of Rush personally had anything to do with the reception and use of his Philosophy cannot be determined. However, it is interesting to recognize this aspect of his life.


In 1866 Rush edited for the last time his only valuable contribution to the fields beyond his immediate medical interests. When he died in 1869 he left a will that showed the fanatical, warped judgment of his later years. It is still the object of comment. The New Republic referred to this will in a recent issue as an example of one which has not been literally followed by the administrators of the estate. After Rush’s will was made public there was much open criticism of it in the newspapers. It was apparently very unfair to relatives, and very strange in his benefaction to its major recipient, the Library Company of Philadelphia. Relatives received only small amounts of money which, as one writer said,

... are so small in comparison to his means, that they seem to be insults rather than compliments to the persons to whom they are to be paid.

One of the items of the will most pertinent to this study was his request that an edition of each of his publications be printed every ten years. It was the observance of this part of the will that resulted, in 1879, in the seventh edition of the Philosophy. The Evening Bulletin editorial "Men and Things," which was devoted to James Rush in the July 12, 1900, issue, makes an interesting comment on this aspect of the will.

But to the last he seems to have still had hopes that there would be a demand for his books, for in his will, among its several ill-advised and annoying conditions, was inserted this provision -- a singular illustration of his literary aspirations and of his desire that his works might not be forgotten by posterity:

"I have given the copyright of all my works to the Library Company, and I will and direct that they shall for the next half century publish every ten years (and earlier and oftener if called for) an edition of five hundred copies of any or all of them, so that they shall

always have on hand a number sufficient to satisfy any demand which may be made for any or either of them at a price not exceeding the cost of publication. I leave additions and corrections in the printer's copies, preparatory to a subsequent edition, which I imperatively require to be published exactly as they are left. The original parts of them have been written without assistance and I wish to be alone responsible for all the faults of thought, division, definition and style and of my corrected orthography as I consider it. An editor sometimes joins himself to a work by a supposed emendation of it. Let him in a work of his own justly blame what he pleases in mine, but not attempt to suit it to any future times and manners. Let him prevent, not imagine, typographical errors, let him strive to improve my spelling only where the world corrects its own redundancy and comparisons on that point. In our important faults it is bad morality, even in science and literature, to try to escape the charge of errors by turning them over to others for correction."

As a matter of fact, in the thirty years since Doctor Rush's death, there has been no demand for any of his works except the "Philosophy of the Human Voice," which is still in quest by students of the subject. In 1878 or about the time when the Ridgway Library was dedicated, the directors of the Philadelphia Company caused a small "edition" to be printed and some years later two or three hundred copies additional. These have been much more than sufficient to satisfy the wants of all who have had a desire either to read or to buy the book. As for his "Hamlet" and his poems, there has probably never been any "demand," while his "Analysis of the Human Intellect" is sought for occasionally only by some person out of a curiosity to ascertain the quality of the Doctor's mind. Although the exact terms of his will as to the printing of editions every ten years have not been literally carried out by the directors, they would doubtless be ready to do so were the public to manifest the slightest disposition to call for or to read the Doctor's books. I believe that the plates of the "Human Intellect" are kept on hand ready to be put to press at any time, should there ever be an awakening of interest in the testator's works.

Perhaps the most significant part of this personal and historical background is that the Ridgway Branch of the Library Company of Philadelphia was constructed and houses today the personal library of Dr. James Rush, which includes the medical volumes he inherited from his
father. Among these books, which Rush apparently used in the preparation of his own philosophy, many have, as already noted, his own marginal notations, which vividly reveal his reactions to previous thought on elocution. These original sources form the basis for much of the material of this investigation. With the authority, then, of the published editions of Rush's Philosophy, together with his own intimate, hand-written, unpublished opinion and comment upon his own source material, this study begins a re-evaluation of the vocal philosophy of Dr. James Rush.

PART II
OF RUSH'S BASIC PHILOSOPHY

Chapter 3. Of His Descriptive Analysis

Chapter 4. Of His Prescriptive Application
PART II
OF RUSH'S BASIC PHILOSOPHY

Chapter 3
Of His Descriptive Analysis

Into his copy of Walker's Elements of Elocution Rush penciled the following:

I do not pretend to give a system of rules, only aim to furnish data (physiological) to Rhetoricians.1

(See Photostat 3).

Even though this attitude is observable throughout Rush's published work, this intimate, personal revelation emphasizes it with clarifying strength.

Walker's lengthy discussion of the "harmonic inflexion" prompted Rush to point out the inadvisability of formulating a system of rules. He emphasizes not only in his criticism of Walker's concept, but at every opportunity, that his main efforts were to observe nature as the chief means of studying the physiology of the voice. Vocal physiology Rush thought of as the phenomenon of expression itself. Study of vocal expression or physiology can be made, he says in justification of his philosophy of vocal analysis, by the same token that the radii of a moving wheel can be counted at other times than during a race. If speech cannot be observed in nature, Rush asks, is it not also impossible to "number and describe the individuals of a herd except in the promiscuous mingling of their flight?"2 He maintains, contrary to the opinion of

1. Rush's marginal notation in his personal copy of John Walker, Elements of Elocution (Boston: D. Mallory and Co., 1810), 244.

This part of pronunciation, therefore, though of little importance to the sense, is of the utmost importance to the harmony of a sentence. Every writer on the subject has left it entirely to the ear; and, indeed, so nice are the principles on which harmony and variety in pronunciation depend, that it is no wonder any analysis of it has been shifted off, and classed among those things for which it is utterly impossible to give rules. But, as we have often observed, though the varieties of voice, in other respects, are almost infinite, all these varieties are still reducible to two radical and essential differences, the upward and downward slide or inflection; and therefore, though the high and low, the loud and soft, the quick and slow, the forcible and feeble, admit of almost infinite degrees, every one of these differences and degrees must either adopt the rising or falling inflection of voice; and these inflections being more essential to the sense and harmony than any, or all the other differences, we have, in the distinction of the voice into the rising and falling inflection, a key to part of the harmony and variety so much admired, and, it may be added, a very essential part. If, therefore, no rules could be given to the application of these inflections to the purposes of harmony and variety, the practicability of marking upon paper those which are actually made use of by good readers and speakers, would be of the utmost importance to elocution; but in this, as well as in other cases, an attempt will be made to mark out some rules, which it is hoped will not be entirely useless.

Preliminary Observations.

When similar members of sentences do not run into such a series, as brings them into the enumerative form; the voice, both to relieve the ear, and im-
most writers of the day (as will be noted in the following chapter), that
speech is composed of such elements as can be scrutinized and described.
Such a task, like any achievement, seems beyond the reach of some levels
of society—"So seem the plainest services of arithmetic to a savage;
and so, to the slave, seem all the ways of music..." But if one is
to claim any ability to criticize a person's speech, he must be familiar
with what good speech habits ought to be. It therefore becomes necessary
to analyze the existing nature of expression. This he proceeds to do on
a purely descriptive basis.

Although I have gone deeply into the philosophical
analysis of speech, and have spared no pains or detail in
illustrating whatever might otherwise be obscure from its
novelty; I have not pretended to make specific application
of the principles of intonation, to all styles of reading and
speaking voice. This assumption of the discipline and practice
of the habitual teacher, is beyond my design.3

His analysis may grow tedious and detailed; it may be difficult to
comprehend because of the labored language of Rush's literary style, and
because of his use of a strange nomenclature. Sometimes his observa-
tions may seem to be only rules and systems because his material is so
specific and lends itself so readily to practical application. But to
dismiss Rush after gathering the impression only that he developed an
elocutionary system is to lose the more profound, yet simple, history
of his philosophy. He did develop a system of vocal expression. To
deny this fact would be to ignore some four hundred difficult pages of
his text. But he did not at the outset intend to supply "specific
application" of rules of expression to form a discipline for use of the

3. Idem, 22.
"habitual teacher." His concern with an orderly description of vocal phenomena was the result primarily of two major circumstances, neither of which was primarily concerned with teaching, or with any aspect of the teaching of elocution. It is the purpose of this chapter to identify Rush's major approaches to the subject of elocution.

First, the Philosophy of the Human Voice is the result of Rush's physiological research. It must not be overlooked that Dr. Rush was a scientist. His father before him had set a high standard of scientific achievement, and now James had accustomed himself to specific medical analysis, and to tying all his findings into a coordinated body of knowledge. He realized that his own successful practice of medicine depended upon his complete understanding of the structure and functions of the human organism, so far as these were known at the time. In turn, he came further to realize that the facts concerning the structure of the vocal mechanism would be discovered only after a true investigation was made of its functions.

Rush proposed, therefore, to make such an investigation by observing through the ear the phenomena of expression. This aim is evidenced in Rush's several objections to a criticism of the Philosophy written by F. Bennati. This writer accused Rush of being too indefinite in his observations. Rush in turn indicated his disappointment over Bennati's not understanding how he had used the ear as a guide to the physiological functioning of the voice and eventually to the anatomy of the mechanism itself.

Bennati made a direct translation from Rush's first edition and included it in his Recherches - sur le Mechanisme de la Voix Humaine
as "La Mechanisme de la Voix et De Diverses Qualités." By way of introduction to this translation of Rush, Bennati wrote a short chapter, which in English is entitled: "Observations upon the Extracted Chapter of the Work of Dr. James Rush, entitled 'The Mechanism of the Voice.'"

Although the entire chapter is very interesting, the first paragraph is most pertinent and a translation of that portion follows:

Dr. James Rush has had published, under the title, "Philosophy of the Human Voice," a work which must have cost him a great deal of research, and the divisions of which reveal a highly observant and methodical mind. Without admitting entirely the principles which he adopts, the facts which he makes known, and the conclusions which he draws from them, it is impossible to read without interest his minute analysis of the origin of the sounds in the human voice, of their development, of their variations, and the factors which influence their quality. His book is a conscientious work; however, although his observations are good and illuminating, he could not go beyond them. In attacking a subject closely tied up with the function of certain organs whose location and complicated movements render observation difficult, Dr. Rush has counted too much upon his natural acuteness to deduce the causes from the effects. Exact information in physiology would have led him much more surely from a knowledge of causes to that of effects, by furnishing him the means of founding his theory upon the invariable basis of human anatomy. In default of this information, he was reduced to make conjectures founded solely upon his impressions; hence, the character of uncertainty which reigns throughout his book. The American scientist appears to be less occupied with the search for truth, than the eradication of certain errors.

By way of refutation, Rush placed a heavily penciled marginal note opposite the latter part of the paragraph above, saying:

In the opinion of some I am too positive. The truth is, on all the points of discrimination of the ear, I have asserted confidently that I know. But on the point of the cause of the functions of the voice as they lie in parts that are not subjected to observation, (which is my only guide) I

5. F. Bennati, Recherches - sur le Mechanisme de La Voix Humaine (Paris: Chez J. B. Baillere, 1832), 96.

6. Idem, 89, 90 (In his personal copy Rush underlined with pencil the one sentence as indicated).
have confessed my ignorance.7

The importance of the Philosophy as a physiological approach was first projected in his original edition, but in the second edition he called further attention to it.

As this section is addressed principally to physiologists, I have omitted a description of the organs of the voice, since it may be found in all the manuals of anatomy; and I can see no use in repeating here an account of structures and actions, when we know not what vocal effect those actions produce. The general statement of our problem is, that -- some part or parts of the vocal canal produce all the phenomena of the voice. Now when discovery shall point out the efficient parts and the mode of their actions, then it will be the duty of anatomy to describe their internal organisation, and motive powers, that the whole may be made a permanent subject of science. Anatomy is truly the foundation of physiological science; but observation of the living function has I believe always thrown the first light upon its various branches. It has been the part of anatomy to confirm or complete our knowledge of them; agreeably to the saying of the Greek philosophy (σις), that, -- what is first to nature in the act of creation is the last to man in the labor of inquiry. With regard to the mechanism of the voice, we are yet occupied with the perplexities of analysis; when that work shall be finished, we may begin again with muscles, cartilages, ligaments, mucous tissues and the os hyoids, and describe the whole with the synthetic steps of natural causations.8

The following excerpt further substantiates this point of view:

I have thus endeavored to set forth what we do not know of the mechanism of speech. The subject of the voice is divided into two branches, -- Anatomy and Physiology. The first embraces a description of the vocal organs. The second a history of the functions performed by that organization. The anatomical structure is recorded even to the utmost visible minuteness; whilst the history of those audible functions which it is the design of this work to develop, and which, by the strictest meaning of the term, constitute the vocal physiology, has in a great measure been disregarded, under a belief that the subject is beyond the power of scrutiny.

In thus overlooking a physiological analysis of quality, force, and pitch of vocal sound, writers have merely endeavored


to ascertain what parts of the organization produce these several phenomena, and seem to have almost restricted the name of physiology to their vain and contradictory fancies about these mechanical causations.9

It is important to realize from the outset, then, that Rush's primary approach is physiological.

The analysis of the human voice, contained in the following essay, was undertaken some years ago, exclusively as a subject of physiological inquiry.10

Rush insists that it has always been the duty of the physiologist to describe the voice, but that no one had fulfilled that responsibility. Until his time, he who laid claim to the physiological descriptions —

... neglected his part, by borrowing the small substance of his knowledge from the fancies of rhetoricians, and the dull errors of grammarians.11

Perhaps the most conspicuous of these grammatical analyses is that of John Walker, who in his Elements of Elocution, lays down a system of rules based primarily upon grammatical constructions as indicated by punctuation marks. Sheridan before him, though not so given to making rules, had concerned himself chiefly with the construction of the language. Other writers who treat the same elements that Rush later describes, seldom develop their arguments beyond the considerations of rhetoric and language.

The following from Walker is typical of the concern of writers prior to Rush:


11. Idem, i.
Elocution, in the modern sense of the word, seems to signify that pronunciation which is given to words when they are arranged into sentences and form discourse.

Pronunciation, in its largest sense, may signify the utterance of words, either taken separately or in connection with each other; but the pronunciation of words, connected into a sentence, seems very properly specified by elocution.

Elocution, therefore, according to this definition, may have elements or principles distinct from those of pronunciation in its most limited sense; and we may consider the elements of elocution, not as those principles which constitute the utterance of single words, but as those which form the just enunciation of words in dependence on each other for sense.¹²

Of course, it will always remain a matter of conjecture as to which is of more value, a grammatical, or a physiological approach. Both points of view had their supporters. Mandeville, for instance, who wrote in 1849, thoroughly rejected the physiological approach of Rush, while he was firmly convinced that the grammatical, as exemplified in Walker, was more practical. Mandeville proceeded to analyse sentences and describe their elocation with the same dependence upon sentence analysis that Walker had taught. Baker says of Mandeville:

His system is based upon the sentential construction, therefore upon meaning. Rush's system he felt to be highly artificial as it was based upon the physiology of the human voice. Therefore, Dr. Mandeville seizes upon the beginnings made by Walker in the field of sentential elocation and attempts to carry the analysis to every kind of sentence in the English language.¹³

Baker further comments on these opposing points of view:

There is little of helpfulness for the modern teacher of public speaking in these texts, yet they illustrate the


lengths to which a particular theory of elocution could be carried; and, studied in contrast with the Rushian philosophy of elocution which was beginning to flourish at the time these books were written, they give insight into the fundamentally different points of view existing between the Sentential Elocutionists and the disciples of the Rushian school.14

On the other hand, one of the few teachers who understood the significance and value of the physiological approach as opposed to the grammatical was Jonathan Barber, the elder of the two brothers. Jonathan Barber came to Philadelphia just about the time Rush was publishing his first edition. Within forty-eight hours of the time Barber had the opportunity to give it a cursory reading, he was impressed with what he considered its profound meaning. Here was the long sought scientific achievement in the field of speech; and Rush had found a true disciple in this man who so quickly accepted the new order and applied it in his own teaching.

I consider Dr. Barber the maker of the present fortune of the Philosophy of the Human Voice. Without him not an American would have understood it. All would therefore have treated it as if it were in itself, and not in their minds, unintelligible; and consequently beneath attention.15

Barber was firmly convinced of the scientific achievement of this new analysis, and immediately championed its cause. Three years later he wrote his own Grammar of Elocution, which he based in a large part on Rush's Philosophy. Though he recognized the contribution of

15. This information is taken from a section called "To the Reader" which Rush had written for the second edition of the Philosophy. For some reason the section was never printed, but can be found in the Printer's Copy of the second edition which Rush apparently recovered and which is now in the Memorial Collection of the Ridgway Branch. For an edited copy of this material, see Appendix A.
Steele, he did not fail to indicate that Rush was his major authority, and even dedicated the entire volume to him. In this dedication there is still another bit of external evidence of the descriptive aim of Rush. Though there are several sentences which are not pertinent to this particular discussion, so much of this dedicatory letter is a recognition of the real service intended by Rush's analysis of voice that it is included here in toto.

TO JAMES RUSH, M. D.
Philadelphia

Dear Sir:
The treatise which you published in 1827, entitled "Philosophy of the Human Voice," was the first work that ever presented a true and comprehensive record of the vocal functions. Physiology is a science, the details of which are discoverable only by observations and experiment. The history of the functions of the voice, is a legitimate department of that science, and you have investigated it in the only true method. Your work is strictly inductive: its philosophical principle is therefore correct. It combines, at the same time, such fullness of detail, with such an orderly classification of the vocal functions, as to entitle your views of the subject, on the ground both of the comprehensiveness of the particulars, and the felicity of the arrangement, to the denomination of A SCIENCE. Much less originality, depth, and accuracy of investigation, devoted to some art which mankind in general have been taught to consider profitable, would have brought you a more immediate recompense of fame; not however, perhaps, a larger portion of ultimate glory. As to the practical tendency of your treatise, I would observe that it satisfied my curiosity, as to the elements of the art which I teach, and enlarged to so great an extent my resources as a teacher, that the advantages I am constantly deriving from it, of themselves prompt me to a full and grateful acknowledgement of its merits. It naturally led to a friendly intercourse between us: for what is more powerful, when good moral qualities are not deficient, to attract and bind one man to another, than fellowship in elevating intellectual pursuits?

The method of investigation adopted in your work, shows the reason why the ancients did not reduce elocution to a science. Recent times first disclosed the true mode of investigating nature; and your treatise will be admitted by all competent judges, to be a triumphant exhibition of its efficacy.
This "Grammar of Elocution" is fruit gathered from the vine which you planted; it is adapted to special purposes, which will be set forth in the preface; but is by no means intended as a substitute for your valuable work.

In what I have said of that work, I have only discharged a debt of public justice, and told what I believe to be the truth; I confess it has been with pleasure, because I can subscribe myself.

Your sincere Friend and Servant,

New Haven, Jan. 1830

JONATHAN BARBER

Rush, then, was essentially a scientist, seeking factual explanation of existing phenomena. This interest was primarily in the field of physiology and anatomy. His first treatise on voice was so clearly a result of an interest in a physiological explanation that it provoked a partial translation into a foreign tongue together with a criticism of his whole approach. The departure from the grammatical systems made by such a physiological analysis was a significant contribution of Rush's text. While his description on this basis was not accepted or even understood by many, it was given considerable support by Jonathan Barber and subsequently by the next generation of students and teachers. So much, then, for the physiological approach of Rush.

In the second place, the Philosophy was an offspring of Rush's original intention to analyze the mind. He says in the preface to the sixth edition:

After the publication of the 'Natural History of the Intellect (sic),' the Author was disposed to dilate the former Title-page of the present Work to what it was originally intended to embrace; the promise of a description of the voice, as the preparatory part of that 'History' . . .

scrapes of science and history, something of Lord Bacon, and the inductive reasoning. But all my collegiate instructors, being of the theologian school, knew, with scarcely an exception, nothing of science. Teachers of Natural Philosophy, Chemistry, and Anatomy, who use the exact method, gave us facts, from their every day lesson-book; leaving us to find out its principles if we could. Mr. Stewart's view of the character and productions of Lord Bacon, though faintly perceived by me and remembered, still excited my curiosity; and the next year in London, I bought his works. The first reading of them brought on the beginning of an entirely new state of mind with me, and I dropped as soon as possible, that merely thinking or theoretic manner of using it, which we had been taught by medical schools, politicians, poets, and theologians. The first subject I applied it to was that of my profession. And he! 'what toads sprung up and off,' at a touch of the Baconian Spear. When applying it generally to the theoretic art of Medicine, it occurred to me, our opinions on the human mind are under the same fictional influence.

In eighteen hundred and eleven, I returned to this country; and in two years after, I gave an introductory lecture to my Father's University Course, which I read to a small class of students. The subject of that lecture was the use of the mind in the study of medicine. This led me to think that 'reasoning' is only a train of physical perception; and that mind, for its destined efficacy, should be not only exact on the detail of some particular branch, but should be instructed on the general principles of all others. I then saw or thought I saw, that the mind, in its outline consisted only of perception and memory; and continuing to observe, this view seemed to be the basis of the general phenomena of thinking.

Reflecting on this subject for some years; and applying principles to facts; gaining new thoughts; and getting rid of old errors, as I now began to consider them; I made the following entry in my Commonplace Book of Medicine, under this head; 'the mind, its healthy functions;' with the date of eighteen hundred and eighteen.18 . . .

Having got rid of many conventional ideas, some time before the above sketches were written, I continued, amid professional and social engagements, to observe, think, and record in desultory Notes from the date of the Sketches, till the end of eighteen hundred and twenty-two. These notes were written between those dates, on loose sheets, which occasioned, in various movings of my papers, the loss of a few pages. The notes were written at intervals, sometimes of months; and with a rapid following up of thought and pen; sometimes without the subjects being immediately connected; sometimes with a slip of Grammar; the repetition of a word; a wrong word, and the obscurity of a sentence or a phrase. With the correction of

these, I copied the desultory notes; that if the purpose in view should ever be completed, the progress of observation from the beginning may be traced. The original notes consist of over one hundred and twenty pages of quarto foolscap paper. There is no date to the first forty pages. Midway on the fortieth, is noted, January twenty-seven, eighteen hundred and twenty-two. Then at the head of page forty-five, February twelfth, of the same year. Again at the foot of the sixty-third, March the eighteenth following. The last date is November thirty, of the same year. Thus it appears by the dates, that more than one-half the notes, it being the last part, was written during the year eighteen hundred and twenty-two; and the first, somewhere between the first of that year and the date of the Sketches; and as I believe during the latter part of that interval; leaving the three or four years to further, but unwritten observations and reflections on the sketches. For in taking views of subjects, it has been my habit to keep them in the more alterable state of thought; rather than to connect them in an indigested form; and thus become a dupe to the authority of my own errors, endued with the more effective influence of written language.19

Rush then continued to explain that he actually stopped work entirely on the subject of the mind for three reasons. First, he felt he needed more knowledge before attempting this important intellectual enterprise of analysis of the mind. Second, he wanted to begin work on a proposed medical volume to be called Novus Ordo Medecinas. Third, he wanted to be more active in his practice of medicine.20

Having laid aside the study of the mind, Rush became interested in the voice, for he felt its contribution to the body of knowledge necessary for the ultimate return to his description of the mind.

When pursuing the study of the principles of Music, I first learned, from a note on the third page of Dr. Smith's Harmonics, that distinction perceived by the Greeks, between the continuous or sliding movement of the voice, in speech, and its discrete or skipping transition, by the steps of the musical Scale. This drew my curiosity toward further observa-

tion and reflection, previously to leaving the subject of the mind. And having, about this latter period, been accidentally induced, by a mere instinct of what I supposed to be a propriety in speech, to make some instinctive remarks to a friend, on the manner of varying the voice in reading, and on giving a proper close to sentences; I was led to an incipient analysis, by the above described distinctions between the vocal and the musical movements.

Having by these morsels of observation brought myself to a 'Longing after' the Philosophy of Speech, I sought to appease my appetite, by a strict, physical, and Baconian investigation of its phenomena, particularly as they might be connected with the working plan of the mind. The first record is noted as 'Remarks on the Human Voice in Reading;' and is dated March, Eighteen hundred and twenty-three; a short time after I had ceased to record on the subject of the mind. The work on the Voice was finished, and ready for the Printer, in June, Eighteen hundred and Twenty-six, but from accidental delay, was not published until the following January.21

As a medical practitioner and investigator, Dr. James Rush was not concerned immediately with the teaching of expression. He was trying to describe the audible phenomena of speech, as it would aid eventually in solving the mystery of the mind. In the next chapter will be described the extent to which he concerned himself with the teaching of the elocutionary system which developed from his descriptive observations.

Both Levertom22 and Redd23 take special cognisance of that phase of Rush's philosophy which deals with the expression of the mind. Both of these writers indicate that his main thesis revolved around the vocal powers to express conditions of the mind. This is in a broad


sense true, but it should be pointed out further that the "verbal sign" of the intellect was described by Rush as the fifth constituent of the mind and thus was actually a part of the functioning of the mind. Physiology is generally considered to be the study of the functions of an organism, so that when one discusses functions, he is discussing physiology. The physiology of the mind, then, actually becomes part of a physiological approach to the brain and voice mechanism.24

Redd quotes from Rush:

Speech is employed to declare the State and Purpose of the Mind. These states and purposes may be called Ideas; and Ideas are divided into Thoughts and Passions. We speak with two purposes. First, to communicate ideas, or thoughts, apart from passion, and Second, to express ideas and thought with passion. According to that difference, the voice should have a different set of signs for each of these purposes.25

She follows this quotation with the comment:

This constitutes in brief Rush's theory, that "Vocal Signs" are used to express thoughts and feelings. Therefore, with this author, the study of interpretation resolves itself into a study of vocal technique, or, a study of what the voice does when expressing the multitudinous variations of thought

24. The following quotation from p. 41, Vol. I, of Rush's Analysis of the Human Intellect shows the general structure of that study:

"We will endeavor to show; there is a similar process of perceiving in the brain; and applying the term Perception, for these leading functions of both the senses and the brain, will divide them into the following Five modes: PRIMARY, MEMORIAL, JOINT, CONCLUSIVE, and VERBAL PERCEPTIONS. These include the constituents both in state, and in action, of that part of the human frame, called the mind."

By Primary is meant the reception of impressions through the senses; by Memorial, Joint, and Conclusive is meant the activity of mind which gives retention, rearrangement, and association treatment to the sensory impressions. The verbal constituent, then, is the symbolism of the mind as given power of expression by the first four constituents. This shows in brief how the "verbal signs" of the mind are an incorporated part of Rush's more complete philosophy.

25. Philosophy (Fifth edition, 1859), 4; also, Redd, op. cit., 10.
Levertou, too, makes a strong point of the expression of the States of the Mind, and his conclusions give prominence to the fact that "Rush taught us that Elocution was a science."\textsuperscript{27} He claimed this as Rush's chief aim. However, Rush's chief aim in the Philosophy has nothing to do with the science of elocution. His description of elocutionary methods was an outgrowth of other scientific investigation. Leverton's broad statement is likely to be misleading.

It is further interesting to note that as early as 1775 Sheridan in the Art of Reading had proposed the same terms and type of division of thought and feeling. In his 1827 edition Rush said:

Schoolmen make a distinction between thought and feeling, and common usage has adopted their language. This is not the place for controversy on this point; nor is it necessary to inquire, deliberately, whether the above distinction refers to the essential nature of the things or to their degrees\textsuperscript{28}.

He maintains throughout all editions that the difference between thought and emotion is merely a matter of degree, as is evidenced by his final treatment of the three stages: Thoughtive, Interthoughtive and Passionative.\textsuperscript{29} But Sheridan is more dogmatic in his belief, and is apparently one of the writers who has provoked Rush to his more comprehensive view of the matter of mind and soul.

Sheridan says:

\begin{enumerate}
\item[{26}] Redd, op. cit., 11.
\item[{27}] Leverton, op. cit., 46.
\item[{28}] Philosophy (First Edition, 1827), 140.
\item[{29}] Philosophy (Fifth Edition, 1859), 164.
\end{enumerate}
All that passes in the mind of man, may be reduced to two classes, which I shall call Ideas and Emotions. By ideas, I mean, all thoughts which arise, and pass in succession, in the mind of man; by emotions, all exertions of the mind, in arranging, combining, and separating its ideas; as well as all the effects produced on the mind itself, by those ideas, from the more violent agitation of the passions, to the calmer feelings, produced by the object of the one; internal feeling, of the other. That which serves to express the former, I call the language of ideas; and the latter, the language of emotions. Words, are the signs of the one; tones, of the other. Without the use of these two sorts of language, it is impossible to communicate, through the ear, all that passes in the mind of man. But there is an essential difference between the two, which merits our utmost attention. The language of ideas is wholly arbitrary; that is, words, which are the signs of our ideas, have no natural connection with them, but depend purely upon convention, in the different societies of men, where they are employed; which is sufficiently proved by the diversity of languages, spoken by the different nations of the world. So it can be seen that Rush's chief interest is physiological description. The "verbal sign" is the fifth constituent in a physiological description of the mind; the five elements, quality, force, time, abruptness, pitch are the essential core in his physiological description of voice. The Philosophy is an outgrowth of his particular interest in the physiological description of the mind. Therefore, the descriptive system of voice becomes at once an attempt to understand the machinery of the mind, and a physiological inquiry into the machinery of vocal expression.

The view I have taken of the arrangement of Perceptions, and of their ways and means, in constituting the whole function of the mind, is hinted at in more places than one, in the 'Philosophy of the Human Voice.' For having derived its arrangement, as I believe, from the order of nature, I resolved to keep her by my side in observing the intellectual powers and works of men. This led to a knowledge of the intimate relation between the voice and the mind.

I endeavored to show in the Notes that the Signs of perceptions are a necessary part of the working powers of the mind; and stated, generally, they are the principal means of conveying a knowledge of perceptions from man to man. In the Analysis of the Voice I found it necessary to be more particular; and therefore divided these signs into signs of Thought, and signs of Expression or of Passion; but since thought; as distinguished from passion; and passion; are only different degrees of intensity of perceptions; the history of the voice is practically part of the history of the mind, and this it was intended to be. I had not gone far, in the analysis of speech, before I perceived the grounds for this intimate relation; and I subsequently found, that the development of the subject of the mind should have gone side by side with that of the voice, if indeed it should not have preceded it; since it is the purpose of the latter to represent the perceptions of the former. But I have given above what I thought sufficient reason for putting aside the subject of the mind and taking up that of the voice; having the fullest confidence, that when we shall have a clear physical history of the mind as we now have of the voice, the two subjects will form the first and second parts, but not the whole of the physiology of the senses and the Brain. 31

Leverton and Redd have quoted from the fifth edition of Rush's Philosophy. They have recognized his explanation of the verbal signs of "thought and passion" as completely developed and ready to be absorbed by the Analysis. However, in failing to take account of earlier editions of Rush, Redd and Leverton have been unable to know his developing philosophy. For although the terminology of "Thoughts and Feelings" appeared in the first edition, the idea was not developed until the fourth, 32 and was not completed until the fifth edition, where it included the "States of the Mind: Thoughtive, Inter-thoughtive, Passionative," which Leverton and Redd discuss and quote. 33

It was not until Rush had clarified in his own thinking this concept of the "States of the Mind," and had presented them in the

31. Human Intellect, II, 476.


33. Philosophy (Fifth Edition, 1869), 166-172.
1859 edition of the Philosophy, that he was ready to use his discoveries in finishing the Analysis of the Human Intellect. But the two major studies are dependent one upon the other for explanation, while both developed from the same research for physiological truths.

Mary Margaret Robb, who has written a book embracing a historical study of the methods of teaching oral interpretation, apparently was not aware of this connection between Rush's study of mind and voice. Her only mention of Rush's work on the human intellect is to say, "Later he, like his father, became interested in the study of the mind and published Analysis of the Human Intellect in 1868." She claims his purpose in the study of voice to be "to devise a discriminating nomenclature for the 'vocal signs' which he observed and to show how elocution could be taught scientifically." She, like Redd and Leverton, admits that Rush gave a description of "vocal signs" and of "states of the mind," but does not acknowledge that the study of voice was actually a part of his first and more important explanation of the mind itself.

It should be said, then, that Rush's basic philosophy is a descriptive system of vocal signs and symbols. This system was the outgrowth of physiological inquiry:

First, of the mind itself, which presented the verbal sign as one of the five constituents of thought processes. The development of the system of expression, therefore, became Part One of an explanation of mental functions.

Second, of the specific functioning of the voice that a better understanding of the anatomy of the vocal mechanism might result.

35. Idem, 85.
Chapter 4

Of His Prescriptive Application

It has been shown in Chapter One that the vocal system of Rush was not so much a formula for the elocutionary art as it was the descriptive aspect of a scientific investigation involving the physiology of voice and of the mind itself. In attempting to complete an evaluation of his basic philosophy, it remains, then, to see whether Rush intended to make any practical application of this elaborate system he had evolved.

It has been said of Rush that he was the father of the mechanical school—that he prescribed definite vocal display for specific expressive effects. Rush's belief that elocution could be taught seems to support the argument that he intended to teach it by mechanical means. The complicated structure of his observations could easily convince one that such was the case.

However, the aim of this chapter is to point out that Rush had not planned any such use of his vocal analysis, but that there were three other distinct prescriptive applications of his system. Each of these concepts was quite different from any held by other writers at that time.

It seems advisable, therefore, to glance at the philosophies of elocution that were current during the period immediately preceding Rush's initial publication.

In the first place, the belief was widely held that there was no way of studying the voice, just as it was thought that the mind would not yield to investigation. Medical science was still in its infancy, and psychological research had not yet begun as a science. Just ten
years before Rush's completion of his vocal philosophy, the German astronomer Bessel had taken note of the Maskelyne incident of 1796 in the Greenwich observatory. While Rush was contemplating the mind and its powers of reception and expression in various individuals, the idea of individual differences was being conceived by Bessel. Plateau, Brewster, Purkinje, and Müller were turning the attention of physiological research to the role of the reacting organism in sensation and perception, and the way was being prepared for modern psychology.¹

Though Rush's work on the mind is cited by biographers as an important early treatise in psychology, by the time of its printing in 1865, experimental psychology was on the verge of recognition and Rush was too late for his subjective observations to be significant. But in the early days of his thinking, he was ahead of his time with his consideration of individual differences ² and the feasibility of analysis of the mind and the voice.

It will be recalled that in Chapter Three mention was made of an early notation of Rush entitled "The Mind, its Healthy Functions,"² which he recorded in 1818. It seems evident, then, that Rush in his psychological thinking was contemporaneous with Bessel, since his first notation is dated only two years after Bessel's discovery. In fact, as early as 1813, according to his own writing as noted earlier,³ he had been giving lectures on the mind to his father's medical students. Rush

¹ Edna Heidbreder, Seven Psychologies (New York: The Century Co., 1933), 76.
² See page 33.
³ See page 33.

*Volume II of the Analysis of the Human Intellect is devoted to showing individual variation in the "constituents" of the mind.
had already been attempting to give a system of order to mental perception by the date commonly considered to mark the beginnings of modern psychology. Then, in an effort to break down the prevalent belief that it was not possible for the mind and the expression of the mind to be studied scientifically, Rush soon attempted an analysis of the voice.

He wrote in the Appendix to the Analysis of the Human Intellect:

Connected with the preceding reason for undertaking the investigation of the Voice, there is the further and important consideration in reference to my future return to the subject of the mind.

The mind has been and still is regarded as the Working of a Spiritual something in the brain, and therefore not to be investigated, as a physical function of the senses and the brain conjoined. This appears to be the principal cause, why the problem of the mind has not been finally solved, on the clear and assignable data of observation and experiment: for who has ever experimented upon Spirit? And certainly Thinking and Wrangling, in the metaphysical way of demonstration, have never been able to show to themselves, still less to others, anything within, or round about it.

Nor is the vulgar idea of the expression of speech very different from this notion of the 'Faculties and Operations of the mind.' The Physiological as well as the Oratorical School has always been 'possessed' with the notion, that the 'Tones of the Voice,' are the result of an indescribable 'Occult quality' or metaphysical something: and that most of the other purposes of Elocution, if executed with propriety and taste, are accomplished only by a like innate or instinctive 'Genius,' that cannot be subjected to the process of physical analysis, and that will not submit to the rules of palpable instruction.4

This attitude is still more pointed in his philosophy of the voice, for there he specifically opposes the view that "the ways of the voice never can be reduced to assignable conditions."5 He goes on to


say rather picturesquely:

This opinion is grounded on the idea that the expressive
effects of speech consist in an occult something which cannot be
discovered, but which is neither high nor low, loud nor soft; in
short is not any of the known accidents of sound. They who thus
confuse the plain revelation of nature, seem to have such an
opinion on expression in speech, as a school-girl has on the ex-
pression of the countenance -- That it is not a palpable effect
of the physical form of the face in its state of rest, and in
its various motions, but that it is a kind of immaterialism,
which darts from the eyes, and breathes from the lips: a 'soul,'
as it were in the face, which is yet 'neither shape nor feature.'

It must be borne in mind, then, that prior to Rush there was very
little effort to analyse the functions of the mind, or to name more
completely the elements of the voice. Partial systems were employed for
describing certain modes of expression, but they did not tell the whole
story. No one had taken into account all of the available physiological,
musical, and psychological information and diverted their principles to
subjective analysis of the entire phenomenon of speech; in fact, such a
feat was not believed possible. This was an important attitude in the
era preceding Rush.

Another opinion closely allied with this first one has its
emphasis on "following nature," as in the Shakespearean advice, "to
hold, as 'twere, the mirror up to nature." Some writers believed that
only nature could be the guide, while others ventured to approve
artistic methods of expression so long as nature was the sole inspira-
tion. Wilkes, who wrote in the middle of the eighteenth century,
exemplifies this school of thought.

A good understanding will always take nature, as a
guide, conscious that hers is the language of the heart,

which all feel, though so few can express; those who can, are
by so doing sure of pleasing beyond the simple power of the most
eloquent Orator; for the Actor penetrates the heart, while the
Orator's tones die away upon the ear.7

Wilkes, like many other writers, however, was definite in his
emphasis upon observing nature, just as many teachers are today. The
mechanical school of acting had existed long before Rush, and in
desperation teachers were clamoring for actors to be more natural in
their actions and use of voice. It might be well to remember that one
of the reasons Garrick rose to such fame in the century before Rush was
because he brought a more natural style of acting to the stage. Wilkes
refers to mechanical acting in the following:

But let it be observed, that in thus distinguishing the
Actor of Genius from the mechanical performer, I would not be
misunderstood to say that a Player to shew his genius must be
perpetually varying his attitudes.8

Ebenezer Porter also recognized the many teachers who adhered
entirely to the "follow nature" school. He says:

There are others, who would discard any systematic
instruction on this subject, and yet allow that one important
direction ought to be given and incessantly repeated, namely,
BE NATURAL.9

Porter goes further with this idea in his Analysis of the
Principles of Rhetorical Delivery.

7. Mr. Wilkes, A General View of the Stage (New York: Printed
for J. Coote, 1759), 84.

8. Idem, 152.

9. Ebenezer Porter, The Rhetorical Reader (New York: Leavitt,
Lord and Co., 52nd Edition, 1839), 16; cited hereafter as: Porter,
Reader. See also: Ebenezer Porter, The Analysis of the Principles of
Rhetorical Delivery as Applied in Reading and Speaking (Boston: Mark
Newman; Hilliar, Gray, and Co., 1827), 40; cited hereafter as: Porter,
Rhetorical Delivery.
It has often been said, the only good canon of elocution is, . . . "enter into the spirit of what you utter." If we were to have but one direction, doubtless this should be the one. Doubtless it is better than all others to prevent the formation of bad habits, . . . and better than any other alone, as a remedy for such habits; but when these are formed, it is by no means sufficient of itself for their cure.\textsuperscript{10}

No useful purpose can be answered by attempting to establish any system of inflections in reading and speaking, except so far as these inflections do actually accompany, in good speakers the spontaneous expression of sentiment and emotion. We say without any scruple, that certain feelings of the speaker are commonly expressed with certain modifications of voice. These modifications we can describe in a manner not difficult to be understood. But here a serious obstacle meets us. The pupil is told how emotion speaks in a given case, and then he attempts to do the same thing without emotion. But great as this difficulty is, it is not peculiar to any one mode of instruction; it attends every system of elocution that can be devised. Take, for example, the standing canon, BE NATURAL, which for ages has been thought the only adequate direction in delivery. This maxim is just; it is simple; it is easily repeated by a teacher; -- but who does not know that it has been repeated a thousand times without any practical advantage? What is it to be natural? It is so to speak that the modifications of voice shall be such as feeling demands, without feeling. This intrinsic difficulty accompanies any theory on this subject, even when no perverted habits of voice are to be encountered, and much more where such habits exist. The only remedy to be relied on is that which I have briefly urged in another place. The TEACHER, who would give his pupils a just emphasis and modulation, must unceasingly impress on them the importance of entering with feeling into the sentiments which they are to utter.\textsuperscript{11}

Porter has struck the keynote of Rush's argument in the quotation above, for he maintains that a student is not often capable of comprehending what "being natural" is, that it remains for some other instruction to enlighten and help him. Although Porter might be termed a strong advocate of the school of nature, he found, however, that further and more specific instruction was necessary to support that mode of teaching.

\textsuperscript{10} Porter, \textit{Rhetorical Delivery}, 37.

\textsuperscript{11} \textit{Idem}, 69.
John Mason (1748) was an exponent of this school on almost the same basis as Porter. Though he strongly emphasized the importance of nature, he also gave specific instructions for certain exercises of the elements, and in a later chapter will be quoted often as an earlier teacher of the principles which Rush advocates.

Says Mason:

Another important Rule to be observed in Elocution is, STUDY NATURE. . . . Above all Things then study Nature; avoid Affectation; never use Art, if you have not the Art to conceal it: For whatever does not appear Natural, can never be agreeable, much less persuasive.12

It is evident, then, that many teachers upheld the idea that the main technique in good expression was to follow the dictates of nature.

In addition to the belief that the voice could not be satisfactorily analyzed, and the enthusiastic endorsement of the "follow nature" school, there was another principle in the teaching of expression that was prevalent in the days before Rush. Porter refers thus to the practice of having the students imitate their instructors:

Some who would discard all theory in elocution, would probably say, — we would by no means leave the learner to chance; we would have him imitate his teacher who should be qualified to correct his faults of manner, by exemplifying himself what is right and what is wrong, in any given case.13

Rush himself sufficiently recognized this approach to give space to a criticism of such a practice.

There is still another class who are too sensible to believe in this mystical doctrine of the inspiration of genius,

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13. Porter, Reader, 15; see also, Porter, Rhetorical Delivery, 39.
who yet think the art of reading well can be taught only by imitation.14

William Cookin, who wrote anonymously in 1776, made a short statement opposing the technique of imitation.

There is a great deal more of ease and nature in the execution of any art, where we follow our own taste, than when we are bare imitators of another person’s.15

Of course, while listing the various points of view concerning the technique of teaching elocution in the days immediately preceding Rush, one must not overlook the schools of thought of Walker and Sheridan. John Walker will be frequently referred to later and little need be said here of his system. It should be noted, however, that he prepared one of the first methodical plans for elocutionary art. But his text falls into the class which Rush says lacks thoroughness in its analysis of all vocal functions. It is, moreover, too dogmatic in its insistence upon practice of minor details. It tends to distort the whole of expression. Walker developed a system almost entirely based on grammatical construction and punctuation, and most of the elements of voice he presents are discussed in their relationship to rules of grammar. It is observable that Walker broke almost entirely away from the "follow nature" technique in calling attention to details that a student ought to employ to keep nature under control. The following quotation from Walker supports Rush’s contention that he did not present a system thorough enough in its analysis to be dependable.


It was not a florid harangue on the advantages of good
Reading that was expected from me, but some plain and practical
rules in a scholastic and methodical form that would convey real
and useful instruction. I conceived first, that as Reading was
an adaptation of certain pauses, tones, and inflexions of voice,
to the peculiar structure and import of a sentence, -- some
advance would be made towards a system of Reading, merely by
collecting together a number of sentences, and classing them
according to their variety and structure and significance.\textsuperscript{16}

Rush thought that Walker based his rules on insufficient
observation. Walker does acknowledge the importance of following
nature, however, and especially in the chapter on expressing the passions
he proposes that all outward symbols should be the result of inner
feeling, and the order ought never to be reversed except when necessary
to help provoke the passion itself. Porter rather nicely indicates the
importance of the "follow nature" school, while signifying the value to
be derived from Walker's analysis. In this quotation one can perhaps
imagine that Rush's analysis might fill the hopes of Porter for a
manual that would admit both concepts.

The worst faults in elocution originate in want of
feeling. But when these faults become confirmed, no degree
of feeling will fully counteract their influence without the
aid of analysis, and patient effort to understand and correct
them. Still, in this process of correction, there is danger
of running into formality of manner, by withdrawing the
attention from that in which the soul of eloquence consists,
-- emotion. For the purpose of guarding against this tendency,
and at the same time accomplishing the ends at which Walker
aims, in his Elements of Elocution, I have much desire to see a
manual for students, free both from the obscurity and the
extreme particularity of his system.\textsuperscript{17}

Sheridan, too, exerted a great influence over the teaching of
his day. His ideas are less radical and more readily acceptable than

\textsuperscript{16} Walker, Elements (1781), I, viii.

\textsuperscript{17} Porter, Rhetorical Delivery, iv.
Walker's. In addition to his development of many of the elements which are to be included in later chapters of this study, he devotes many paragraphs to the condemnation of certain methods of teaching of his time. One of his primary concerns is with the pronunciation and articulation of words of the language. He felt that there was a general failure on the part of the public to attach enough importance to the development of good habits of speech from early childhood to maturity, and as a result the speech of the nation was unbecoming to an intelligent society.

Sheridan points out how the folly of nations that could persevere in such absurd customs as binding women's feet, and reshaping the heads of babes is to be wondered at. And yet --

Much more to be wondered at, would the conduct of a civilized people be, who should persevere in a custom far more fatal; that of binding up and contracting from early childhood, and moulding into unnatural forms, the faculties of speech, which are amongst the most noble, useful, and ornamental, that are possessed by man; by which he is in a more especial manner distinguished from brutes; and without the perfect use of which, he can not, in many cases, as he ought, discharge his duty to his neighbor, his country, or his God. . . . It can be proved that we are under the domination of such a custom . . . 18

Sheridan places the blame for most of the misguidance in speech instruction upon the need for qualified teachers. Systems of rules for pronunciation and vocal effectiveness are useful, he says, but unless there are masters to teach them faithfully, they will do more harm than good. As a matter of fact, Sheridan puts so much emphasis

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upon the need for good teachers that he borders on the theory that
students should be encouraged to imitate their masters. The following
would indicate strongly that he adhered to the belief in imitation:

Practical rules, differ much from those which are merely
speculative; nor will informing the understanding in some cases,
by any means produce execution, without other assistance. Can
anyone be taught to sing, or to dance, without the aid of
masters, and patterns for imitation? Why should we suppose then,
that the use of regular tones and gestures, which are of the same
nature, and founded upon the same principles, can be acquired any
other way?\(^19\)

This seems to be somewhat of a contradiction of his policy as
developed in a rule given several pages earlier:

The rule by which all public speakers are to guide
themselves is obvious and easy. Let each, in the first place,
avoid all imitation of others; let him give up all pretensions
to art, for it is certain that it is better to have none, than
not enough; and no man has enough, who has not arrived at such
a perfection of art, as wholly to conceal his art; a thing not
to be compassed but by the united endeavors, of the best
instruction, perfect patterns, and constant practice. Let him
forget that he ever learned to read; at least, let him wholly
forget his reading tones. Let him speak entirely from his
feelings; and they will find much truer signs to manifest them­
selves by, than he could find for them. Let him always have in
view, what the chief end of speaking is; and he will see the
necessity of the means proposed to answer the end. The chief
end of all public speakers is to persuade; and in order to
persuade, it is above all things necessary, that the speaker,
should at least appear himself to believe, what he utters; but
this can never be the case, where there are any evident marks
of affectation or art.\(^20\)

In any event, Sheridan does believe that elocution can and should
be taught, but that there are insufficient teachers to do it. He
believes that one should adhere to nature, but that certain prescribed
rules should be followed. Just what practice he would advise is not
always clear, but of all the early writers he is the most forceful in

\(^{19}\) Idem, 150.

\(^{20}\) Idem, 148.
his request for school departments that would confine themselves to speech instruction. It is apparent, however, that Sheridan believes most of the poor habits of speaking were due to improper practice in oral reading. He complains that children who could speak satisfactorily soon learned to be artificial because they made no effort in reading to sound natural, and there developed an influence of that artificiality upon the speaking itself. Sheridan hits a modern note in his advice for the correction of this and other bad habits when he gives a program of rehabilitation. In effect he says:

To Correct Bad Habits:

1. Become conscious of the habit.
2. Learn how the habit grew upon one.
3. Learn the method of correcting it, "in order that a good habit may succeed to a bad one . . . For . . . habit only can get the better of habit." 21

These, then, are some of the major opinions of teachers and writers just prior to Rush concerning the teaching of elocution. Most conspicuous among them were John Walker and Thomas Sheridan, though there were others who represented current techniques of the day. By way of summary, there are several particular impressions of this period to remember before continuing with a discussion of Rush's contributions: viz, that most people believed a careful and complete analysis of the functions of the voice could not be made; that the predominant advice was to "follow nature," as advocated by Porter and others; that there was contradictory evidence of the value of the imitative technique; that Walker had

developed a somewhat unsupportable structural scheme of expression; and, that Sheridan was advocating the better training of teachers.

Remembering that Rush's interest in the teaching of elocution was purely incidental, it remains to be seen what practical application he planned to make of his system in answer to the confused arguments of the day. Rush said:

Can Elocution be taught? This question has heretofore been asked through ignorance. It shall hereafter be asked only through folly.22

Whatever else is said about Rush, it cannot be charged that he lacked any great confidence in his own achievement of a usable plan for speech improvement. He considered his descriptive system to possess considerable practical value in the teaching of elocution, as well as in the development of his greater analysis of the mind. With these things in mind, the three major applications can now be described.

In the first place, Rush wished to disprove the contention that the expression of the voice was not describable in a complete arrangement; and, by the description of the voice he hoped to strengthen and support his belief that the mind itself could likewise be analyzed. As a matter of fact, he thought that a description of either the mind or voice would automatically prove that the other could receive similar treatment. In concluding his argument against the metaphysical attitude toward mind and voice, he says:

But as I believed otherwise, on the subject both of the mind and the voice, I thought, a physical investigation of the latter, as less difficult, and as likely to oppose fewer prejudices, might, through the exercise of a strict and earnest

observation, prepare me for conducting an Independent and original inquiry through that limitation and confusion which the notion of spirituality has spread over the subject of the mind. And thus to endeavor to teach others, that if the expression of the voice, which they have ascribed to some spiritual or occult agency, could be shown, as the effect of obvious and describable physical causes, it might be less repugnant to the old opinion, if I should show, that the simple powers and working of the mind, might be displayed, and thereby rendered more comprehensible and useful, by a like physical explanation.23

This indicates Rush's attempt to prove by his vocal analysis that contrary to popular belief, a systematic observation of nature was possible. Furthermore, he planned that the information made available by this study would enable him to proceed with a similar order of the functions of the mind. This combined purpose is the first point of applicability Rush intended for his Philosophy.

The second application of Rush's vocal system is more pertinent to the teaching of elocution. Dr. Rush was not without appreciation of the primary importance the inspiration of nature should play in speaking and acting. He made constant reference throughout all his writings to the principle that the first responsibility should be to nature, and that to be "natural" was the first requisite of good expression. But Rush raised the question as to how it was to be known when "nature" was being followed; upon what standards could nature be judged. Rush tried to show that there was the additional task in elocution of learning how to observe what was truly good in nature, so that it could be followed. In other words, he was pleading for the student to be a great observer of vocal signs of thought and passion, so that these patterns could become a part of his unconscious experience.

In fact, Rush himself was a great exponent of the "follow nature"

school, but he emphasized the need for basic training prior to the moment of actual natural expression. A rather conclusive proof of this contention is found in the following quotation from the Philosophy:

He who has a knowledge of the constituents of speech, and of their powers and uses, is the potential master of the science of Elocution; and he must then derive from his ear, his sense of propriety, and his taste, the means of actually applying it with success.24

In other words, when one is familiar with the elements of speech, he is ready to employ the dictates of nature. Rush indicated his belief in the concept of concealing the elements of technique while giving nature control over expression when he marked in his copy of Avison's Essay on Musical Expression that the latter part of the following passage was particularly important.

What, then, is the composer, who would aim at true musical expression, to perform? I answer, he is to blend such an happy mixture of air and harmony, as will affect us most strongly with the passions or affection which the poet intends to raise. And that, on this account, he is not principally to dwell on particular words in the way of imitation, but to comprehend the poet's genera; drift or intention, and on this to form his airs and harmony, either by imitation (so far as imitation may be proper to this end) or by any other means. But this I must still add, that if he attempts to raise the passions by imitation, it must be such a temperate and chastised imitation as rather brings the object before the hearer, than such a one as induces him to form a comparison between the object and the sound: for, in this last case, his attention will be turned entirely on the composer's art, which must effectually check the passion. The power of Music, is in this respect parallel to the power of Eloquence: if it works at all, it must work in secret and in an unsuspected manner. In either case, a pompous display of art will destroy its own intentions: on which account, one of the best general rules, perhaps, that can be given for musical expression, is that which gives rise to the pathetic in every other art, an unaffected strain of nature and simplicity.25


It is increasingly apparent that Rush was not advocating a mechanical use of his system for the display of ideas and emotions, but was concerned with its use as a means of increasing a student's power of observation. Cookin, in 1775, had presented this same idea in the *Art of Delivering Written Language*. He says in the Preface:

> It appears, therefore, in short, that works of this nature may at least be as much service in teaching us to PERCEIVE as to EXECUTE, and that they propose to increase the number of sources from whence we derive our pleasure, as well as to add to the quantity of their streams.  

The task of acquiring this keen observation of nature and the personal experiences of emotional episodes in one's life belongs to the first constituent of the intellect. Of the five constituents of the mind, the first one is the peripheral sense, followed by the "memorial" sense or the ability to remember. It is possible through these two processes to select and associate experiences and ultimately to reproduce them either in the same form or in an altered adaptation. Once again it can be seen that Rush's philosophy of voice is part of his treatment of intellect. Witness this idea as found in the fifth edition of his *Philosophy*. The fact that the fifth edition carries the idea in its developed form, whereas it is but vaguely hinted at in earlier editions, presents additional evidence of how his vocal philosophy was developed until it was ready for transference to the *Analysis of the Human Intellect*. I have read somewhere, that the Ancients practiced what they call Silent Reading. It is possible, they meant, going over in auricular imagination, the forms of pitch, and of the other modes of the voice; for we know that this memorial or imaginative reading is practicable, and may be employed, both

for our own peculiar manner, when we are conscious of it, and for that of others, when we have the memorial power of silently imitating them. This is the process of the Mimed; for his memory of any peculiarity in the vocal signs of those he imitates, must silently precede his audible utterance of it. This faculty cannot however, be exercised to any intent of present or future pleasure or improvement, except with a precise knowledge and nomenclature of the vocal signs; for without these, there could be no exactness in the ideas of our own peculiarity, or that of others. But with our present analytic knowledge of the signs of thought and passion, and with visible and conventional notation for these signs, we may distinctly perceive, study, correct, and improve our own speech, and that of others, both of past and present time, with the silent exercise of the imagination. We know that the perceptions of the several senses, are represented in the memory; that the images through the eye and the ear, are clearer and more readily excitable, than through the others; and that we may memorially think of any peculiarity in the voice. Now, in intonation, the different intervals; in force, the different stresses; in time, the different quantities; and the various qualities and pauses; when once perceived and named, have a comparative peculiarity, so strongly impressed on the memory, that we can think them...

Rush believed, then, that a knowledge of the elements of voice was a prerequisite to good observation of nature, and that by presenting such a system of elements he was offering practical material for the teaching of elocution.

I need not propose arguments in favor of the analytic and elementary system to those, who, from the habit of acquiring the sciences, have formed for themselves economical and effective plans of education. It is well for all others to take opinion in this matter, for a while at least, upon faith; and to know that the only reason why elocutionists have never employed this mode, is because they have been ignorant of the subdivided functions of speech. There are too many examples in science, of the useful application of analysis to the purpose of rudimental instruction, to suppose that the same means would not have been adopted in elocution, if they had been within reach of the master.28

Wilkes had suggested the same problem of the need for standards


of judgment when he wrote in 1759:

It has been the opinion of an eminent writer, "that if a Player enters thoroughly into the nature and circumstances of his part, a proper action will necessarily follow;" but, if this assertion be true, there will then be no necessity of study or previous preparation, and genius, unassisted by art, is alone sufficient; but, in the mean time, where shall we fix the standard of genius and perfection, since judgment and taste are so various: It is certain as was before observed, that every passion and sentiment has a proper air and appearance, both of countenance and action, stamped upon it by Nature, whereby it is easily known and distinguished; every representation which comes short of, or exceeds it, is a departure from it....

I have met with many who were able to enter into all the spirit and fire of a character in idea, and yet, for want of sufficient knowledge and experience in the Drama, were never able to bring that idea into execution, because he wanted judgment to adjust both his voice and his action; mistaking rant for energy, and beating the air instead of keeping up a proper deportment.29

Thus, it has been shown that Rush thought his vocal system, if employed, would be an aid in the observation of the elements of nature, in order that nature in turn might control expression.

In consideration of the third application Rush makes of his system, it must be noted that he did not labor under the impression that keen observation alone would produce good expression. He believed, as would any wise teacher, that no matter how well one may learn to observe the scheme of nature, there must yet be a way of using these observations in practice. As Sheridan says:

To conceive, and to execute, are two different things: the first may arise from study and observation, the last must be the effect of practice.30

Rush makes his opinion clear on this point in his concluding remarks of the first edition.

30. Sheridan, Lectures on Elocution, 16.
However philosophy may admire the beauty of nature in the scheme of the human voice, it must be regarded as a curiosity only, if it does not lead to some practical application. I have therefore joined with the physiological analysis, a consideration of the means for facilitating instruction and for improving the art. We have learned the plain diatonic sign of thought, and the more impressive voices of expression. We have seen how speech may be dignified without being dull, and plaintive without exhibiting the affectation of the whine: how it may be full in quality and graceful in its vanishing construction: how its measurable movements may be adjusted to the pauses of discourse; and how definitely all the modes of emphasis may be ascertained.  

It is to be concluded, then, that the third prescriptive value of the system of vocal analysis is in its function as a guide to practice and exercise. Rush does not question any further the need to practice on the elements of speech, but he raises the question whether it is better to get the practice from a methodical form, or from occasional example and miscellaneous observations.

These are the elements of speech; and the various uses of them, enumerated throughout this essay, contribute largely to the force and elegance of utterance. They must be employed. The question is, whether they should be learned from an assemblage, in current discourse, or from a separate and iterated practice on their individual forms.  

In commenting on this passage from the Philosophy, Stewart says:

It was in the failure to take cognizance of this statement that led the followers of Rush to the extreme. Rush gave something tangible and his followers pounced upon it, codified it, and formulated exercises for use. They made a skeleton of it, and fed the bare bones to babies. . . . They mistook the technique, the scientific data for the method and therein they failed.

32. Idem, 483.
It is hardly probable that failure to recognize this particular statement caused all of the misinterpretation of Rush's philosophy, for there are too many other points on which Rush is misunderstood. This is one place, however, where Rush indicates his belief that students should develop vocal flexibility and capacity of voice by a systematic method rather than learn haphazard rules for specific occasions.

Further evidence from Rush to support his contention that his scheme is a means of developing vocal capacity rather than an arrangement of rules for delivery can be found in the following:

It is indeed, as I have heard it called, the Science of brachial defence; and believe me reader, that the elementary training in its positions and motions, carry not more superiority over the untaught arm, than the definite rules of elocution, founded on a knowledge of the elements of the voice, will have over the best spontaneous achievements of passion.34

There is in man a will, with a system of muscles which the common calls of exercise render obedient to that will, and which thereby produce motion in every direction, not forbidden by the nature of the joints. Now there is scarcely a boy of any physical activity or enterprise, who does not, on seeing a Circus-rider, desire to imitate him; to catch and keep the center of gravity through all the varieties of balance and motion. Yet this will not prevent his fall, on the first trial, however natural the tie between his will and all his muscles may be. The truth is, that without long experience, he knows not what is to be done; or if he knows, he is unable to effect it. With some analogy to this case, there are many persons, not destitute of feeling or passion, who have a free command of the voice, on the common occasions of life, but who like the tottering of the unskilled rider, betray a faltering tongue if they attempt to imitate the varied power of the long-practiced speaker. When the voice is prepared by elementary trial, the feeling which prompts the expression will find the pliant and strengthened organs ready to furnish a satisfactory and elegant accomplishment of its design.35

34. Philosophy (First Edition, 1827), 484.

35. Idem, 485.
When an attempt is made to teach an art without commencing with its most simple elements, combinations of elements pass with the pupil for the elements themselves, and holding them to be almost infinite he abandons his task, as of hopeless end. An education by the method we are here recommending reverses this disheartening duty. It reduces this seeming infinity to computable numbers; and I anticipate, with no little confidence, that one of the first comments on the foregoing analysis, will refer to the unexpected simplicity of means for the production of the unbounded permutations of speech.36

This last quotation shows what Rush predicts will befall a student who attempts to observe and practice haphazardly, or who follows the directions of texts such as Sheridan, Walker, and Porter, who, he insists, do not tell the whole story.

Rush draws one other analogy which should be included to complete the picture of his attack on the teaching of the day, and his plea for orderly practice on elements.

Go to some, may I say all, of our colleges and universities, and observe how the art of speaking, is not taught there. See a boy of but fifteen years, sent upon a stage, pale and choking with apprehension, in an attempt to do that, without instruction, which he came purposely to learn; and to furnish amusement to his class-mates, by a pardonable awkwardness, which should be punished, in a person of his pretending and neglectful preceptors, with little less than scourging. Then visit a Conservatorio of Music—see the orderly tasks, the masterly discipline, the unwearied superintendence and the incessant toil to produce accomplishment of the voice; and afterwards do not be surprised that the pulpit, the senate, the bar and the chair of medical professorship are filled with such abominable drawlers, mouthers, mumblers, clutterers, squeakers, chanterers, and mongers in monotony; nor that the schools of singing are constantly sending abroad those great instances of vocal wonder, who sound along the high places of the world; who are bidden to the halls of fashion and wealth; who sometimes quell the pride of rank; by its momentary sensation of envy; and who draw forth the intelligent curiosity, and produce the crowning delight and approbation of the Prince and the Sage.37

36. Idem, 487.
37. Idem, 489 f.
Thus, the third prescriptive application of the Philosophy has been shown. Rush in this three point program did present a plan for the teaching of elocution, and one which was a direct result of his descriptive, physiological analysis of voice. He made no mention of a prescriptive system to design vocal display for specific expression, but he was definite in his request for consideration of what he thought to be the essentials of voice that greater facilities might be laid in the hands of nature.

Can elocution be taught? Rush said it could and suggested a way. But the method he presented was soon misunderstood and taken as a superficial, mechanical formula stripped of its profound meaning. Many simplifications of his system were soon published by teachers who sought to present a concise outline of elocutionary art to students. These abridgements did not recognize his true purpose, but prescribed the very artifices Rush had sought to remedy.

In the Preface to the third edition of his Philosophy, Rush takes occasion to condemn the practice of simplifying his system for schools:

This attempt, either by its very purpose, or by the manner of its execution, has perhaps had the effect to retard the progress of our new system of the voice. For, the superficial character of these books, and the mingling of parts of the old method with parts of the new, together with an attempt to give definition and order to these scattered materials, has left the inquirer unsatisfied, if indeed, it has not brought his mind to confusion. 38

He continues later:

One of the purposes of this work is to show, by refuting an almost universal belief to the contrary, that elocution can

be scientifically taught; but the manner of explanation and arrangement in too many of these garbled school-book compilations, has gone far towards satisfying the objectors that it cannot.39

Woolbert gives us a clear picture of the Rush "elements system."

He says that the modern complaint leveled against it might be justifiable if directed towards the distorted use of the theories of Rush's followers. But Woolbert suggests that the teachings of today are successfully using the elements whether teachers admit it or not.

The Rush "elements system" -- So much has been uttered by way of condemnation of the so-called "elements system", based on Rush principles, that comparatively little needs to be said of it in this paper. The objections leveled against it are that it produces artificiality; that it is not artistic; that it does not offer a natural method of expression; that the mind does not think in terms of pitch, rate, force, and quality; that to teach students matters of diction, triads, discrete cadence, orotund quality, or median stress is to hold their attention to the wrong suggestion and to produce expression that is artificially inflated or unintelligently fantastic; that it subordinates thought to set formulas, and sacrifices matter to manner. Teaching by means of Rush "elements" chooses vocal sounds on the wrong basis; it is choice that can easily be too arbitrary, eccentric, erratic, meaningless.

Without attempting to go into the merits of these contentions, some of which will stand against at least the old-time teaching of this school, it will be well to point out that some of the most efficient teaching of public speaking in the country in an academic way is being done with emphasis in class on these elements of pitch, time, force, and quality. Whatever the paper arguments may be pro and con, the fact still stands out that the "elements" are making good in the classroom in some very notable instances. It is doubtful if any three institutions in the country can show a larger number of students who can make a good showing on the platform than the University of Michigan, Northwestern University, and Ohio Wesleyan; and all three use some form of "elements" instruction. This is mentioned here because the attack upon the "elements system" has been particularly enthusiastic and dogmatic.

We can sum up the status of the Rush "elements" as a factor in expressional pedagogy by saying that while their arguments against their use seem very impressive, yet the

elements are actually used in a way to get good results in spite of these arguments. Obviously, there is a leak somewhere in the philosophy of the opponents. . . .40

Woolbert suggests here the study which perhaps should follow this re-evaluation of the Philosophy, vis., an investigation of the influence of Rush's major philosophy and analysis, as herein evaluated, upon modern trends in the teaching of speech.

After considering the mode of teaching prior to Rush, and after penetrating the text of Rush's Philosophy as recorded not alone in his work on voice, but also in his Analysis of the Human Intellect, the three purposes to which Rush intended to put his system can be seen.

First, he wished to prove by his Philosophy that the expression of the voice could be described in an orderly arrangement, and by the formation of a vocal system he hoped to furnish himself with the data necessary to complete a similar study -- the Analysis of the Human Intellect.

Second, Rush prescribed study of the elements of voice as an orderly and comprehensive means for increasing one's ability to observe nature that nature might in turn be a more controlling influence in creating inspired expression.

Third, Rush prescribed practice on the elements of voice as part of a plan for increasing the vocal capacity, just as one would exercise the other four constituents of the mind to increase mental capacity.

PART III

OF RUSH'S ORIGINAL CONTRIBUTIONS

Chapter 5. Of His Clarification of Nomenclature
Chapter 6. Of His Radical and Vanish Concept
Chapter 7. Of the Alphabetic Elements as Explained by Radical and Vanish
Chapter 8. Of Syllabication as Explained by Radical and Vanish
Chapter 9. Of the Specific Intervals of Inflection
PART III

OF RUSH'S ORIGINAL CONTRIBUTIONS

Chapter 5

Of His Clarification of Nomenclature

It was found in Part Two that out of Rush's descriptive analysis there evolved an arrangement and system of the verbal signs of the intellect. The distortion, abridgement, and plagiarism which followed in the wake of Rush, as disclosed in Chapter Two, have clouded his real issues and confused his own contributions with those who preceded and those who followed him. Part Three will undertake to describe the portion of his philosophy which can be considered original with him.

Perhaps there is little significance to Rush's arrangement of chapters, but it is worth noting that the concepts that appear to be entirely original in his Philosophy are to be found in the early pages of the book. On page 144 of the first edition Rush says:

I propose to devote the remaining sections of this essay to an analysis of expression: to point out its symbols, and to assign a definite nomenclature to them.¹

This seems to be the dividing line between his entirely original concepts and that part of his description in which he adapts other theories of the day to his own analysis. On this same page and later² Rush acknowledges that most of the elements he treats have been universally known and in some cases have already been carefully developed. Just how these were considered prior to Rush will be discussed in Part Four of this study. The material covered in his beginning pages,

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¹. Philosophy (First Edition, 1627), 144.
². Idem, 533.
however, is, for the most part, unique in character and original in its development. There are, it is true, isolated ideas throughout the entire text which will be acknowledged as of Rush invention. But when all the points of his system have been studied, it becomes evident that his major original contributions are practically all concentrated in the opening chapters of his book.

It is also evident that in most instances the concepts which were entirely original with Rush and were based on his own observation alone are quite fully treated in the first edition, 1827. There are in the succeeding editions minor alterations of grammar and explanation, and some small additions of material, but Rush's precision and clarity of nomenclature, his radical and vanish concept, his system of alphabetic elements, his "Doctrine of Syllabication," and his concept of the specific interval in inflection are all almost completely developed in his first edition.

This chapter, then, is primarily concerned with an examination of Rush's contributions through his clarification of nomenclature. The character and arrangement of the terms he employs is indicative of the precision and detail of his observation of vocal phenomena. It is no doubt true that the terms Rush uses are not in themselves so significant as the concepts which they represent. Many earlier writers had held, as will be noted later, views somewhat similar to those of Rush; but their use of terms to apply to these concepts was often so varied and so vague that some question may be raised regarding the clarity of the concepts themselves. It is not the function of the present chapter to inquire into the originality of the concepts to which Rush gave new terms, but rather to point out that his clarification of nomenclature
should be regarded in itself as indicative of his underlying observation and analysis. In this sense, then, attributing to Rush an originality and precision in terminology is equivalent to pointing out, that in the arrangement of elements and principles, his analysis of voice itself is original.

The most conspicuous example of Rush's rearrangement of terms, and consequently of his analysis of voice, is his list of the "elements."

Rush felt that "all varieties of sound in the human voice" could be assigned to five general heads:  

Quality  
Force  
Time  
Abruptness  
Pitch

The following explains his concept of each element:

The terms by which the Quality or kind of voice is distinguished, are rough, smooth, harsh, full, thin, slender, soft, musical, and some others of the same metaphorical structure. 4

For the specifications of Force we use the words strong, weak, feeble, loud, soft, forcible, and faint. These are indefinite in their indication, and without any fixed relationship in degree: Music has more orderly and numerous distinguished the varieties of Force, by its series of terms from Pianissimo to Fortissimo. 5

Time, in the art of speaking, is subdivided into long, short, quick, slow and rapid. 6

I employ the term Abruptness to signify the sudden and full discharge of sound, as contradistinguished from its

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5. Idem, 30.
more gradual emission. This abruptness is well represented by the explosive notes which may be executed on the bassoon, and some other wind instruments.\(^7\)

The variations of Pitch are denoted by the words rise and fall, high and low.\(^8\)

Rush's classification of the elements represented his own observations and analysis of voice. He is accredited here with originality of arrangement, for there had been considerable difference of opinion as to exactly what constituted an "element." Many writers had attempted to propose a similar list, but often their analyses had permitted an overlapping of factors, as will be noted in the case of such terms as accent, tone and others. In some cases an element as described by Rush was omitted by the earlier writer. Whether or not Rush's own description of what was elemental in vocal expression was valid is not within the scope of this study, but is left for a later investigation in relation to more recent literature.

An example of lists of elements offered by earlier writers is that of Porter, who was a contemporary of Rush. He presents a list of "parts." This list resembles somewhat that of Rush, but represents a decidedly different point of view as to what is elemental in vocal expression. According to Porter:

The parts of delivery, to be considered in their order, are: Articulation, Inflection, Accent and Emphasis, Modulation, and Action.\(^9\)

It is noteworthy, however, that Porter makes no comment on quality as an element, nor of force as an inclusive term for all changes

in volume, nor of time or abruptness. On the other hand, he does mention inflection and modulation as separate elements, where Rush does not find them so, and he includes accent and emphasis as elements whereas Rush considers them to be aspects of other elements.

Sir Joshua Steele, who wrote an essay in 1775 as a formal criticism of Lord Monboddo's Origin and Progress of Language, attempts in the very earliest pages of his Preface to clarify the obscurity of earlier critics and ancient grammarians as to terms and characters.

He says, in his Essay Towards Establishing The Melody And Measure of Speech, that only two properties belonged to language; viz., accent and quantity. Occasionally pauses are explained as to their importance, but are never described as measurable or clear in their uses. However, Steele includes accent, quantity, emphasis, pause, and force, as elementary in depicting the various phases of vocal training. Rush marginally noted in his personal copy of the Essay that a better arrangement was quality, time, force, abruptness, pitch. Steele has a very interesting graph of his concept of the whole speech phenomenon as follows:

Rush, however, felt that the five elements he himself had described were the basic functions of the voice and that they defined and classified vocal effects more satisfactorily than did Steele's arrangement.

Each element could be subdivided into its parts and an orderly system of vocal description would result from such an organized system.

In Rush's subdivision of the elements he used certain other terms which represented his own analysis of voice, and which should be described here as a part of his contribution through a clarification of nomenclature.

The general term quality is an example of a term made clear and usable by Rush's analysis and description. He defines quality and then assigns specific names to various kinds of quality that are observable. The concept of quality was apparently known to previous writers, but was designated by such terms as "tones." However, it never could be ascertained with certainty whether "tone" referred to the quality of voice or to the pitch of voice. Sheridan, for instance, says:

The tones resulting from the emotions and exertions of our nobler faculties, tho' they excite feeling, as it is in the nature of all tones to do so, yet it is only of a vague and indeterminate nature ... 12

While it is obvious that in his use of the word "tones," Sheridan here meant quality, on the other hand tones was even then and is now a term which might have a connotation involving pitch. Such a double meaning was described by Hastings.

The word tone has two significations in musick. It is applied to a particular interval of sound; as from faw to sol - sol to law, etc., and also to a sound separately considered in relation to its particular qualities; thus we say, a good tone, a bad tone, etc., and it is in this latter sense, we are here to make use of the term.

The speaker whose tones are too much forced, should be taught to confine his voice to a higher or lower pitch. 13

While, as will be shown in a later chapter, Rush cannot receive credit for originating the concept of quality of voice, yet it seems quite evident that he clarified it as an element and gave it the specific term of quality. The same statement is true of his use of the terms for the four qualities which he lists; whisper, natural, falsette, and orotund. None of these names are in themselves new, nor are the qualities which they signify. But Rush here, for the first time, used specific terms to apply to specific qualities in an orderly, systematic arrangement. The whisper, for instance, is referred to by Cookin14 as a tone made when the glottis is open. Rush himself attributes the term of "orotund" to the Romans, who described the Greeks as having "os rotundum"


voices. Rush feels that the English expression "roundness of tone" probably comes from that Roman term, and so he uses it to give a definite name to the quality he describes as full, musical and smooth. The term natural was of prevalent usage, but apparently falsetto was new with Rush. He describes the "falsetto" as a quality which seems to be made with a false voice. From this we have the term falsetto in use today.

Thus it can be considered that in addition to Rush's originality in classifying and describing the elements of voice, he can also be accredited with the designation of these four specific qualities.

The next element Rush lists is that of Force. Great confusion existed in the use of this term at and before the time of Rush. Force was sometimes spoken of as accent, quantity, tone, or loudness. And yet, accent was in turn also thought of as pitch, inflection, and quantity.

By force Rush meant the energy of voice production which results in the loudness of the sound produced. This may refer to syllables, entire words and phrases, or even to the general expression. In the process of exerting more force on one syllable than another accent might be produced. But accent itself was referred to by some writers as an element of speech. By others, accent was a term parallel to force; and by still others accent referred solely to pitch variation.

It will perhaps be best, therefore, to explain what Rush included in his fifth element, pitch, in order to present at this juncture a clarification of the term accent.

By pitch, Rush referred to all changes in the pitch of voice, either in a rise or fall or in any combination. He can be considered

the first modern writer to use the following terms in a vocal analysis

presenting a description of pitch:

**Concrete Sound** - the continuous slide of the voice.

**Discrete Sound** - the rise or fall of voice without the continuous junction of the slide.

Rush admitted that he borrowed these directly from Dionysius of Halicarnassus and other Greek and Roman rhetoricians.

The Greek and Roman rhetoricians . . . perceived the existence of pitch, or variation of high and low; noting further, that the rise and fall in speaking were made by a concrete or continuous slide of the voice. This concrete sound, was, in their system, contradistinguished from the change of pitch produced on musical instruments, which consisted in a rise or fall to other places of pitch, without the continuous junction of the slide. This was called discrete sound.16

It is interesting to find this same reference in a penciled marginal note by Rush in his copy of Steele.

The Greek made the distinction of speech and song to consist in the continuous voice being appropriated to the former, and the intervalled or discrete to song -- but there is no truth in this definition -- for speech consists in the use of various measured extents of the concrete intermingled with various measured extents of discrete intervals.17

(See Photostat No. 4)

Euclid, according to Primatt, calls these two effects by the names *discoursive* and *diastematic*:

"The motions of the voice, 'says he,' are two: the one continued, which is also discoursive; the other diastematic, or distinguished by intervals, which we use in melody."18


17. Marginal notation in Rush's personal copy of Steele, Essay, 5.

PART I.

We suppose the reader to have some knowledge of the extraneous notes of music, though not possessing the extraneous qualities of those notes. These notes may be defined practically, as a series of sounds moving distinctly from grave to acute, or vice versa (either gradually or suddenly) by intervals; of which the semitone (commonly so called) may be the common measure or divisor, without a fraction, and always dwelling, for a perceptible space of time, on one certain tone. Whereat the melody of speech moves rapidly up or down by glides, wherein no graduated distinction of tones or semitones can be measured by the ear; nor does the voice (in our language) ever dwell distinctly, for any perceptible space of time, on any certain level or uniform tone, except the last tone on which the speaker ends or makes a pause. For proof of which definition we refer to experiment, as hereafter directed.

Whereas, almost every one perceives and admits singing to be performed by the ascent and descent of the voice through a variety of notes, as palpably and formally different from each other as the steps of a ladder; it seems, at first sight, so new that even men of science should not perceive the effect of this alteration; and makes a pause. For proof of which definition we refer to experiment, as hereafter directed. Instead of making a pause, it makes the next note, as palpably and formally different from each other as the steps of a ladder; it seems, at first sight, so new that even men of science should not perceive the effect of this alteration; and makes a pause. For proof of which definition we refer to experiment, as hereafter directed.

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The following terms in the description of the pitch element
Bush takes from musical theory and practice of the day.

**Scale** - the various degrees of **Pitch**.

**Concrete Sound** - changes in the degree of pitch without breaking
the sound.

- the scale is described in the usual way as
having seven well calculated sounds with tones
and semitones.

**Discrete Sounds** - produced by intermissions of the concrete slide.

**Interval** - the distance between any two points in the scheme
whether proximate or remote.

**A Tone** - the amount of the concrete sound omitted between the
first and second places in the scale (see notes as de-
scribed below).

**A Semitone** - the amount of the concrete sound omitted between
the third and fourth places.

**Keynote** - the first note of a given scale.

**Octave** - the eighth note when considered in relation to the first.

**Diatonic or Natural Scale** - the succession of the seven scale
sounds with the octave added.

**A Note** - a given and static sound in the scale . . . this to
be distinguished from tone which is "the portion of
the concrete either heard between two approximate
places of a note, or omitted therefrom."

**Concrete Intervals** - notes heard successively in the scale with
the omission of the concrete sound . . .
better termed as discrete intervals.

**Melody** - a succession of notes in the consecutive ascending or
descending order of the scale (exclusive of time and
force and abruptness and pause which go with it in
music).

- may also be a succession of notes taken out of their
numerical order.

**Places, Points, or Degrees of the scale** - points of the scale
where a sound is made.

**Semitonic or Chromatic Scale** - progression of the semitones in
the scale.
Modulation or Changing the Key - changing from a scale with one key-note to a scale with another key-note.

Cadence - the consummation of the desire for a full close in the melody, by the resting of its last sound in the key-note.

Intonation - the performance of the functions of pitch; therefore the changing of sound either discretely or concretely.

- true intonation implies the execution of the above in an exact fashion, as opposed to false intonation.

Tremulous Scale - the progression from key-note to octave (or vice versa) in less than semitonic steps . . . as in neighing of a horse . . . the voice can and does move in this fashion.

Concrete Scale - a continuous movement of pitch with no appreciable intervals, etc. 19

How many of these musical terms Rush got from Dr. Calloott's Musical Grammar 20 one cannot be sure, for the same information is to be found in most musical books of that day. On the other hand, Rush's design of discussion is so like that of Calloott that one would immediately find grounds for comparison. Calloott makes a particular point of distinction between note and tone in an effort to clarify the terminology of musicians on that issue. 21 Rush makes a similar special distinction in the above list. Calloott also describes the diatonic, semitonic, chromatic, and enharmonic scales, which Rush takes over into speech. Furthermore, Calloott uses the term skip to designate discrete movement of voice. The skip is mentioned later by Rush together with key and slide. But these terms are found so regularly elsewhere that they have not been listed above. Walker, for instance, says:

. . . that constant practice will strengthen the voice in any key we use it even though this happen not to be the most

natural at first. 22

Also, notice this from Kames:

In reading, whether verse or prose, a certain tone is assumed, which may be called the key-note; and in that tone the bulk of the words are sounded. 23

Therefore, since Rush has comments in his copy of Callcott and since his use of musical terms is so like that of Callcott and the design of the books so similar, it seems quite safe to say that Rush got much of his musical knowledge and terminology from this author. This does not infer Callcott to be his only source, for there is an extensive collection of music books in Rush's library, all of which he no doubt studied.

Rush obviously did not invent the musical terms he uses, but their incorporation in a nomenclature to describe the phenomenon of voice was initiated by him and he should to that extent be considered the originator of them.

To return, now, to the confusion between accent, force, and inflection, it can be seen that Rush's classification of the elements created a distinct terminology clarifying the ambiguity that existed. There were at and before the time of Rush two opposing schools of thought on what accent ought to mean. One was led by Sir Joshua Steele who held to the Greek interpretation of accent as meaning pitch change. He quotes Dionysius of Halicarnassus and then continues with his own explanation of accent in the following:


"That accent is the change of the enharmonic voice, by an extent or stretch up to the acute, or by levelling it to the grave, or by making a circuit in the circumflex." In other words, sliding up to the acute, sliding down to the grave, and sliding up and down, without change of articulation in the circumflex.\textsuperscript{24}

The acute accent, then, refers to the rising pitch, and the grave to the falling pitch. Steele has even (he claims accidentally) created his symbols for such inflections to resemble these two accent symbols of the Greeks.

Wherefore I think it must be understood, that acute and grave were not fixed tones, like the notes of diatonic music, but were marks of vocal slides; viz. that acute began grave and ended acute; and on the contrary, the grave began acute and ended grave.\textsuperscript{25}

Foster, whom Rush mentions in the Preface to the Philosophy,\textsuperscript{26} wrote at length on the subject of accent. Part of his Essay was a reply to a Dr. G. (apparently Gally) who wrote in opposition to the use of the Greek accent. Foster, as an eminent classical scholar, attempted to point out the actual derivation of the accent, and in so doing made the additional association of quantity with it. Foster says:

First, then, It is evident that nature hath given it [voice] a variety of tones, that gradually rise or fall above or below each other: this is the first and grand division of sounds into high and low. In singing many of these are used; in common discourse and reading, fewer.

Secondly, It is evident, likewise, that the human voice, like every wind instrument, has a power of shortening or lengthening any of those sounds it utters.

On the former division of these sounds is founded what grammarians have called accent, relating merely to the

\textsuperscript{24} Steele, Essay, 10.

\textsuperscript{25} Idem, 11.

\textsuperscript{26} Philosophy (First Edition, 1827), vi.
particular elevation or depression of them on certain syllables; the marks of which are (/) for the elevation; (\) for the depression; and (~\~\~) for the elevation and depression joined together on the same syllable, forming what is called a circumflex; as the two when separate are called the acute and grave.

As the word accentus comes from acceino, and the corresponding Greek word πρωτός from ἀρχή, cantus; the very derivation of these words marks out their particular relation to music, which depends more on the variety and combination of notes, considered as high and low, than as long and short.27

It may be remarked, that accent, though closely united with quantity, is not only distinct from it, but in the formation of the voice really antecedent to it. The pitch, or height of the note is taken first, and then the continuance of it is settled; by the former of these the accent is determined; by the latter the quantity. So closely combined and inseparable are these two things, which have sometimes been represented as utterly incompatible with each other; so distinct likewise are these, which at other times have occasioned much perplexity by being confounded together.28

This confusion of accent (inflection) and quantity to which Foster refers is shown by Primatt. He believed that it was impossible to produce an elevation of voice without other elements also being altered. He says:

For every accent, if it is any thing, must give some stress to the syllable, upon which it is placed. And every stress, that is laid upon a syllable, must necessarily give some extent to it: for every elevation of the voice implieth time, and time is quantity; - even a rough breathing is able to make a short vowel long for no other reason, but because it layeth a greater stress upon it, than a smooth breathing doth. - it cannot therefore be said, that accents only denote an elevation of voice. For no such elevation can subsist, and be made sensible in pronouncing, whatever may be done otherwise in singing, without some stress or pause, which is always able to make a short syllable long.29

As would be expected, since he made such precise distinctions in the elements, Rush did not agree with Primatt in his contention that change of pitch could not be made without accompanying changes. With reference to the entire paragraph quoted, Rush says: "I deny hotly the whole of this." 30

Chapman recognized the confusion in the terms accent and quantity, but he solved his dilemma by subscribing completely to Steele in all his terminology. Chapman says:

How very accommodating is this gentleman, ACCENT !!! He is almost all things to all Prosodians. . . . Hardly will two teachers be found who teach upon the same principles, or who use the same books. 31

Sheridan, on the other hand, was a prominent leader of the opposing school of thought. He took many occasions to dispute Steele's concept of accent, and he championed the more modern idea that accent refers to variations of force.

The meaning of the term [accent] was very different amongst the ancients from what it is with us. Amongst them we know that accents were marked by certain inflexions of the voice like musical notes; and that grammarians to this day, with great formality inform their pupils, that the acute accent, is the raising of the voice on a certain syllable; the grave, a depression of it; and the circumflex, a raising and depression of both, in one and the same syllable. . . . the term with them signified certain inflexions of the voice, or notes annexed to certain syllables, in such proportions as probably contributed to make their speech final.

The term with us has no reference to inflexions of the voice, or musical notes but only means a peculiar manner of distinguishing one syllable of a word from the rest, denominated by us accent; and the term for that reason used by us in

30. Rush's marginal notation in his personal copy of Primatt, 72.

He further states his modern understanding of accent in the Art of Reading and the Rhetorical Grammar:

By accent is meant, a certain stress of the voice, upon a particular letter or syllable, which distinguishes it from the rest, and at the same time distinguishes the syllable itself to which it belongs, from the others which compose the word.33

Then again in the Lectures on Elocution he says this distinction is made in two ways:

... either by dwelling longer upon one syllable than the rest; or by giving it a smarter percussion of the voice in utterance. Of the first of these, we have instances in the words, glory, father, holy; of the last in battle, habit, borrow.34

Dwyer employs a concept of accent similar to that of Sheridan. He says:

Accent consists in laying a particular stress on a certain syllable, or the syllables of a word, which gives such a syllable, or syllables, force, and marks the grammatical form [as in contest, contest, contract, contract].35

Walker mentions the conflict over the terms of accent, too, and uses an explanation, which he apparently got from Sheridan, that this misunderstanding was brought about by the use of accent to designate the various dialects of England. Walker tried feebly to straighten out the matter, but Rush made the notation in his copy of

32. Sheridan, Lectures on Elocution (1781), 49 f.

33. Sheridan, Art of Reading (1798), 71; see also, A Rhetorical Grammar (Philadelphia: Robert Bell, 1763), 62 and 86.

34. Sheridan, Lectures on Elocution (1781), 49.

the 1810 edition of Walker, "It is clear to me Mr. W. has not done it." 36

There was a popular English lecturer at the turn of the nineteenth century named W. Thelwall who also acknowledged this controversy. He held to Steele's interpretation of accent and developed several new terms of his own to prevent misinterpretation. One of these was percussive accent, which he used to give the idea of accent not by pitch change, but by change in force. In a footnote he says:

I use this compound word, in preference to the more simple and appropriate term - percussion... I am avoiding the gross and popular absurdity of applying the term accent (which ought merely to relate to the musical inflections of the voice, and which therefore, must belong to every existing syllable) to the particular syllable of a word that is emphatically distinguished over the rest... For a beautiful and demonstrative analysis of this essential difference, between syllabic accent, and syllabic emphasis... see the work of Mr. Joshua Steele. See also, "An Essay upon the Harmony of Language," etc. written, I understand, by a Mr. Mitford; but published without name... in London. J. Robson, 1774. 37

Thus it can be seen that there was great difference of opinion over the question of what accent was and how it was achieved. Sheridan summarizes the problem this way:

Thus, simple as the state of the English accent is, there is no article of speech has occasioned more perplexity in those who have treated of it, merely by confounding it with the accents of the ancients, which were quite different things. There is no subject of antiquity which has more puzzled the literary world than that of the Greek accents; the marks of which have come down to us with their books, but the use of them is utterly unknown. 38


37. W. Thelwall, Introductory Discourse on the Nature and Objects of Elocutionary Science (London: B. Boothroyd, 1805), Footnote, 5. Barber in his Grammar of Elocution (1850), 7, mentions a Mr. John Thelwall who was apparently the same as W. Thelwall.

38. Sheridan, Art of Reading, 72.
In a study of Rush it is of importance to note this confusion in the use of the term *accent* as it resulted from an alleged difference in the Grecian method of obtaining accent and the nineteenth century method. Rush, by careful explanation of forms of accent and emphasis, has made it clear that not only inflections, but changes in force, time, and abruptness, give an accent to words and syllables, and also emphasis to phrases and sentences. The Greek symbols of grave, acute, and circumflex had lost their original meaning by the eighteenth century and were now thought of as indicating stress. It was for Rush to show that everybody was right; that accent was gained by pitch changes, and, at the same time, by change in force. There is no doubt that the confusion of these terms in the writings of his predecessors and contemporaries stimulated and influenced his observations of what he thought to be the true phenomenon. So again, Rush can be considered original in his clarifications of nomenclature.

Having discussed the terminology of quality, force, and pitch, it remains to consider Rush's other two elements, viz., *time* and *abruptness*.

By *time*, Rush referred to the length of syllables, the rapidity of the utterance of words and phrases, and all other items that had to do with the rhythm and timing of speech. The common term in that era for length of syllables was *quantity*. Steele has a very complete discussion of *quantity*, which was very acceptable to the teachings of the time. Although, as will be seen later, Rush found much to criticize in Steele, he had little to say in opposition to his concept of *quantity*.

Had Steele's strict meaning of *quantity* as length of syllables and pauses been adhered to by all writers, Rush might have kept the term
as one of the elements. But here again writers had widely differed on
the use of the term quantity.

Sheridan thought of quantity as the general loudness of the voice.
This can be clearly seen from the following:

The quantity of sound, necessary to fill even a large
space is much smaller than is generally imagined; and to the
being well heard, and clearly understood, a good and distinct
articulation, contributes more, than the power of voice. 39

... never to utter a greater quantity of voice, than
he [the speaker] can afford without pain to himself, or any
extraordinary effort. 40

Porter, on the other hand, uses this term as one to refer to
several elements. He says it employs quality of voice, the loudness,
and time. All three of these factors work together to make one syllable
of a greater quantity than another. Porter says of the term quantity --

... I use not in the restricted sense of grammarians
and prosodists, but as including rotundity and fullness of tone,
loudness, and time. 41

Quantity, in the sense Porter uses it, is so closely associated
with emphasis that the factors which create emphasis change also the
quantity of a syllable.

Walker too, refers to the confusion in the use of the term
quantity in the following quotation, in which he also gives evidence of
still greater misapplication of other elements.

It seems absolutely necessary to obviate a very common
mistake with respect to the voice, which may lead to an
incurable error; and that is the confounding of high and low
with loud and soft. The plain differences are as often jumbled
together as accent and quantity, though to much worse purpose.

41. Porter, Reader, 63.
Our mistaking of accent for quantity when we converse about it, makes not the least alteration in our speaking; but if, when we ought only to be louder, we raise our voice to a higher key, our tones become shrill and feeble, and frustrate the very intention of speaking.42

But Rush, as we have seen, attempted to clarify these misunderstandings by a description of a system of elements. His element of time embodies all aspects that have to do with actual length of sound. By accepting Rush, teachers were better able to see the actual agreement of other writers who on the surface seemed to be at such odds because of conflicting terminology.

Finally, Rush names abruptness as a fifth element. By this he refers to the attack upon a sound. He does not develop this concept at length as he does the other elements, but it is mentioned throughout the book in combination with other analyses. He felt that in addition to force of the voice, it was observable that the explosive attack upon a word gave a still greater effect of strength, and that it should be registered as a function of the voice that could not be incorporated into the other elements. This is apparently a concept entirely new with Rush, for there seems to be no mention of any such observation by earlier writers.

In addition to the five elements of speech and their explanatory terms, Rush uses two other headings which should be considered original with him. They are: stress and drift. With only occasional exceptions, such as the use of stress in the quotation by Sheridan from page 72 of the Art of Reading,43 no writers before Rush seem to use these terms.

42. Walker, Elements (1781), II, 229.

43. See p. 82.
Indeed, in the case of drift and flight, if it were not so difficult to segregate these two ideas from the elements which they employ, one might even be able to set them aside as not only original in name, but in idea. However, since they are actually only a part of the other elements of voice, they are to be considered as original terms only.

Stress Rush considers as part of the element of force. This is indicated, for example, by his comment on the median stress. He says: "This element of force is applied to all the intervals of the scale."\(^{44}\)

By his terms radical stress, median stress, vanishing stress, compound stress, and thorough stress, Rush offered something new in his manner of designating force, but since these forms of stress are so definitely a part of his concept of force, the discussion of them will be left to Chapter Fourteen.

Drift of the voice is that dominating character we observe in a voice as a result of repeated use of a certain vocal technique. Rush clearly states this in his opening paragraph to the chapters of drift.

He who listens to a good reader, may perceive that his voice is not only adapted to the varying indications of the sentiments which lie in individual words, but that there is a style in the movement which runs through the parts or the whole of the discourse; is accommodated to its reigning sentiment or spirit; is identical during the prevalence of that spirit, and changes with its variations. Every one recognizes this difference in manner between a facetious description, and a solemn invocation from the pulpit; between the vehement stress of anger, and the well known whining of complaint. It is to this continuation of the same style, whatever the repeated element or elements be, that I apply the term drift of the voice.\(^{45}\)

\(^{44}\) Philosophy (First Edition, 1827), 337.

\(^{45}\) Idem, 421.
It can be seen here, that Rush does not imply that drift involves any new expression, but that it is a vocal style developed by continued use of the elements in the same combination. He later points out that drift might easily go on to monotony and become a fault of a speaker. Drift serves certain admirable needs, but if indulged in without discretion, it becomes an error.

There are several other terms, such as abatement, flight, and emphatic tie that can be considered as original with Rush, for no use of them can be located in any previous writing.

Abatement refers to the reduction of the pitch and force of the voice.

Flight of the voice is the quickness of utterance of phrases.

Emphatic Tie is a mode of indicating grammatical connection.

However, these, like a few others, seem to be conveniences of terminology rather than names of new ideas and are consequently included here only as further evidence of Rush's contribution to a more specific nomenclature.

In summary, this chapter has shown how Rush has made an original contribution to the study of speech by a reclassification of concepts and a clarification of terminology. In some cases he has invented new terms, but more often he has brought terms from other sciences, particularly from music, over to the description of the phenomena of expression. In still other cases, he has merely rearranged terms already in use in speech to prevent confusion, overlap, and ambiguity. Rush applied his analysis and classification of nomenclature in particular to the following:
(a) A reclassification of the elements of speech.

(b) A description of the specific qualities of the voice.

(c) The adaptation of general musical terminology to speech.

(d) The use of the concepts of stress, drift, abatement, flight, emphatic tie.
Chapter 6

Of His Radical and Vanish Concept

Although Rush's analysis and description of the elements of vocal expression, as evidenced by his clearly defined nomenclature, was an important point of originality in his Philosophy, perhaps the most significant original concept of Rush is that of the radical and vanishing movement. Almost all of his explanations of the various factors of vocal expression are dependent upon this movement. In fact, his entire "Doctrine of Syllabication," and his system of alphabetic elements is based upon this concept. Indeed, the underlying principle of inflection itself is the radical and vanishing movement. In the explanation of this movement of voice, Rush enters his first remarks on the wave of voice and the rise and fall of voice to specific intervals. Likewise the various kinds of stress (mentioned in the preceding chapter) are designated according to the way the radical and vanish are employed. Because his explanation of the elements, his doctrine of syllabication, and his belief in the specific interval of inflection are unique in their development, they are to be discussed separately as original contributions of Rush, even though they are actually a part of his radical and vanish concept. The remaining portions of Rush's analysis of voice, however, which often appear to be original because of their relationship to the basic radical and vanishing movement, in reality provide only an original approach in his adaptation of existing concepts.

The purpose of this chapter, then, is to explain what Rush meant by radical and vanish, and to point out that it was original with him. It is not intended here to show any application of this concept beyond that which is necessary in the explanation of it.
It might be said at the outset that the concept of the radical and vanishing movement was almost complete in the first edition. By the fourth edition its explanation was more elaborate and contained a few more illustrations, but there was no basic change in the fundamental concept. Rush made no reference to his having obtained the idea of radical and vanish from any particular source, and this study has uncovered no usage of those terms in any books concerned with expression and elocution.

It might be explained, however, that the word radical itself refers to root. According to a musical dictionary by one of Rush's contemporaries, the radical base is the fundamental base from which develops a melody, a chord or harmonies. The term radical was apparently borrowed from music, for his use of it is so consistently similar to its musical connotation.

Radical, then, is the root note. It is the beginning of each sound, from which can develop all manner of movement to complete any unit. Vanish, on the other hand, means nothing more than the continuation of the radical sound in whatever pattern is intended. Because the development of the radical is usually into a quickly vanishing or fading effect, he terms that last part of each sound the vanish. The first characteristic of this movement, then, is the change in volume or the fading.

Rush presents the idea of radical and vanish in its most simple form in the diphthong. In the word day there is little doubt of the

presence of the [e] - [i] diphthong. To the attack the voice makes
in its utterance of [e] Rush gives the name radical movement. This
movement blends and ultimately terminates the sound in [i], and he
calls the latter the vanishing movement.

In addition to the "fading" effect of the [i] in the diphthong
[eI] there is also a second characteristic of the radical and vanish
movement, namely, a change in pitch--usually a rise. In the case of a
diphthong, this rise in pitch occurs on the concrete, or as it is
commonly referred to today, a slide. This phenomenon he explains as
particularly observable when the diphthong [eI] is prolonged. However,
even if the [i] is shortened until it is hardly discernible, the
effect of the vanishing rising through the interval of a second is still
present.

When the letter a, as heard in the word day, is
pronounced simply as an alphabetic element, without intensity
or emotion, and as if it were a continuation, not a close of
utterance, two sounds are heard continuously successive. The
first has the nominal sound of this letter, and issues with a
certain degree of fulness. The last is the element e, as heard
in eve, gradually diminishing to an attenuated close. During
the pronunciation, the voice rises by the concrete movement
through the interval of a tone or second; the beginning of a,
and the termination of e, being severally the inferior and
superior extremes of that tone.2

There is no attempt on the part of Rush to imply any division of the
movement of sound into two distinct parts; these terms can only be
a "... general reference to the two extremes of the movement."3

The symbol which Rush uses to visualize his description of this
movement has no particular significance in itself and is supposed not

even to be comparable to the symbols of music. Originally Rush said he thought to designate the radical and vanish by the following:

\[ \text{\textbullet} \]

But he felt that the curved lines of the following were more graceful:

\[ \text{\textbullet} \]

Consequently, he came to use the latter.

The thick, circular appearance of the lower part of the symbol indicates the radical movement, and the gradual tapering of the rising part of the symbol represents the vanishing movement. In the accompanying photostatic copy (Number 6) from Rush's fifth edition, it can be seen how this basic symbol is varied to show direction and degree of pitch change. The lines upon which the symbols are superimposed represent the musical staff.

In normal, unemotional speech a rise in pitch of the concrete movement of voice from radical to vanish is through one whole tone. But if there is any alteration of that interval a variation of effect will be created. If, for instance, the rise is only a semi-tone, the effect will be plaintive. Rush arrives at this point of view after

I have not given symbols for the concrete and discrete minor third, and semitone, since their representation on the staff may be easily imagined.

Forms of stress on the Concrete.

In the above notation, there is no meaning in the curve of the vanish, except on the wave, nor in the circular enlargement of the radical. In this, as formerly remarked, the eye only
having observed how the vocal expression changes when affected by emotional and intellectual factors. In a later chapter on pitch, this study will point out in detail Rush's ideas on how thought and emotion are conveyed by inflection. It is important to remember always, however, when thinking of Rush's concept of inflection, that his whole idea is based on the radical and vanish movement as the governing factor.

In fact, Rush does not believe that it is possible in speech to utter a sound which does not have a rise or fall in pitch. Walker holds that the plaintive tone may be created by a monotone instead of a semi-tone radical and vanish, as explained by Rush. Walker says:

The plaintive tone so essential to the delivery of elegiac composition, greatly diminishes the slides, and reduces them almost to a monotone; say, a perfect monotone without any inflexion at all, is sometimes very judiciously introduced in reading verse.\(^5\)

But Rush himself heartily objected to this idea of a "perfect monotone," for he wrote in the margin of his copy of Walker: "No such thing in speech! Poh! Poh!"\(^6\)

Smart, who wrote just prior to Rush, also contested the idea of a perfect monotone. In most instances Smart agrees with Walker's contentions; this, however, seems to be one exception. Smart says:

In one respect Mr. Walker has erred: he confesses himself entirely ignorant of music, and hence has been led to say, that a succession of words is sometimes pronounced in a perfect monotone, when it is monotonous by comparison only. I have remarked this error in my Grammar of Pronunciation, and have since found a similar remark in an Essay on the Accents, Prosody, &c. of the English Language, by Mr. Odell.\(^7\)

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6. Rush's marginal notation in his personal copy of Walker, 86.

7. B. H. Smart, *The Theory of Elocution* to which are now added, *Practical Aids for Reading the Liturgy* (London: John Richardson, 1826), 49, Footnote.
In the Grammar of Pronunciation, Smart projects this criticism as follows:

In singing, every word or syllable is uttered in some one certain note, agreeing with one of those in an established scale; in speaking, every word or syllable, in which the voice varies, is uttered with a slide, being a species of tone wholly different from any of those notes. Inflection, then, is this sliding up and down of the voice, and it seems to be the concomitant of every sound employed in discourse. Mr. Walker does indeed say, that when a plaintive manner is required in reading poetry, the slides are often reduced almost to monotones, and that a perfect monotone may sometimes be introduced in describing what is vast and magnificent; . . . 

Even though Smart, Steele and several other writers recognized that the speaking voice varied continually in pitch, they contributed no further explanation concerning the nature of that constant change, other than to point out the gross inflectional movement. Smart, for instance, says:

Now, when we consider this circumstance; . . . that every sound being in some degree inflected renders the slides less obvious to notice; when to this we add the difficulty of separating force from tone, so as to distinguish a depression in regard to the latter, although the voice is manifestly louder, or an elevation, although the voice is softer; and when, moreover, we reflect how rapid and instantaneous are these motions of the voice, never resting, like the notes of music, for a measurable time at one point, but continually gliding, so as almost to defy scrutiny; when we put all these considerations together, we shall probably feel some abatement of our wonder, that the true nature of inflection was so long a secret even to the masters of the art of speaking themselves. And we shall be still less surprised, that they who have scarcely even thought on the subject should at first be unable to ascertain any of these slides, and afterwards find the utmost difficulty in distinguishing between one and another.

The measurability of inflection is the subject of a later discussion, but the above information is offered here to point out

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that although writers prior to Rush were apparently aware of a certain
type of pitch movement which distinguished speech from song, Rush's
concept of radical and vanish was the first attempt to actually describe
the fundamental unit of pitch variation.

Rush's refusal to admit the existence of a "perfect monotone"
is without a doubt due to this concept of radical and vanish; he believes
every sound of voice makes a measurable rise or fall in pitch in the
manner of radical and vanish movement.

Further explanation of this concept comes from Rush's comments
to the effect that radical and vanishing movement is the peculiar
characteristic of speech distinguishing its sound from that of musical
instruments. An instrument can be constructed to have the timbre of
voice, but it never sounds human because it lacks the flexibility of
manipulation which allows the voice to produce the radical and vanish.

I have thus endeavored to describe, under its various
forms, an important and delicate function of speech. There is
a peculiarity in the human voice which as far as I have observed,
has never been copied by instrumental contrivances. The sounds
of the horn, flute, and musical-glass, may severally equal and
even surpass in quality a long-drawn, and level vocal note;
still there is something wanting, that distinguishes their
intonation from that of speech. It is the want of the equable
gliding, the lessening volume, and the soft extinction of the
yet imitable radical and vanishing movement.10

There is still another phase of the radical and vanish which
should be mentioned if one is to understand how completely this concept
colors his entire description of pitch. If the voice in moving from
radical to vanish does so in a smooth manner with no effort to prolong
either the attack or the release of the sound, Rush calls that form of
radical and vanishing movement the equable concrete. If, however,

there is a tendency to hold the first part of the sound beyond its normal length and then to move rapidly through the vanish part of the sound, there is produced what he calls the protracted radical. And likewise, if the radical portion is slighted so that greater volume and time can be given to the latter part of the interval, or the vanish, the protracted vanish is the result. It is upon the various contributions of these protractions that Rush bases his distinction between speech, song, and recitative. These terms, first advanced in the first edition, were developed and expanded through the third and fourth, becoming fully crystallized in the fifth.11

Now it can be more clearly understood that it is the radical and vanishing movement in its various combinations of intervals and its modifications of movement (i.e., equable concrete, protracted radical, protracted vanish) that forms the basis for Rush's analysis of the use of pitch in speech. If true intonation is to be observed, it is important to be able to distinguish whether the radical and vanish moves upward or downward, through a semi-tone or an octave, and whether the radical be longer or shorter than the vanish.

The movement of the radical and vanish has been mentioned primarily with respect to its upward direction, for the rising inflection Rush believes to predominate any other. He finds that whenever no particular effect is to be achieved by a downward motion, the voice naturally falls into a rising radical and vanish motion employing the interval of the second. However, the fact must not be ignored that the voice often engages in downward inflections. Later discussions will

11. Idem, 92.
explain the circumstances which call for the downward direction of the radical and vanishing movement.

There is a third form of radical and vanish which Rush proceeds to name the wave. This can either be

... Direct, when the first interval ascends, and the second descends; Inverted, when this order of the intervals is reversed; Equal, when the rising and falling are to extent the same; and Unequal, when different. It is called Single, when two intervals only are thus joined: Double when another is subjoined to the second of the single form: and Continued, when its line of flexures exceed the double. The wave is made through all the intervals of the scale; and its different forms may be variously united with each other. Thus it may be double-direct, unequal direct, double unequal, and in short, its intervals may be in all possible combinations.\(^\text{12}\)

The matter of the wave is thoroughly discussed by Rush in later chapters. But it is quite significant that he should first mention it here, for it indicates how the radical and vanish concept permeates his entire system. His preliminary description of stress at this juncture is another example of the importance of the concept.

This radical and vanishing movement is not confined to the concrete rise or fall of pitch, but it is also a part of discrete movement. Instead of the radical blending into the vanish at some undeterminable point in the glide, there may be a hiatus in the sound and the vanish will pick up the movement after an interval has been skipped. Thus the radical and vanish movement is always a complete unit even though the inflection might have occurred as a discrete pitch change.

The radical and vanish concept is thus found to be fundamental and essential to Rush's explanation of other phenomena of expression. No writer before him has suggested such a phenomenon of vocal sound.

\(^{12}\) Idem, 98.
This concept and all the description based upon this concept is consequently highly original with Rush. It is this fundamental unit of pitch variation which he hears in Nature, and which influences all his other observations of voice. The following three chapters will show his major applications of the idea to the analysis of speech.
Chapter 7

Of the Alphabetic Elements as Explained by

Radical and Vanish

Having established the basic theory of the radical and vanish, Rush proceeded to apply it to various aspects of speech. Among these aspects are the elementary sounds of the English language. He recognized the disorder brought about by the inconsistencies of spelling in relation to the phonetic sounds. He felt, however, that a reclassification of the alphabetic elements which only overcame the obstacles of spelling would not be so useful as one which also observed the intonation of speech.¹ He proceeds, therefore, to describe the elementary sounds of the language on the basis of radical and vanishing movement, in order that there might be a close relationship between the arrangement of sounds and expression itself.

Without designing to overlook or destroy arrangements, truly representing the relationships of these sounds, it is only intended in this essay to add to their history a division, grounded on their important functions in intonation. The strictness of philosophy should not be so far forgotten, as to suffer the claim of this classification to be exclusive. Let it remain as only a constituent portion of new and wider prospects, yet to be opened in the art.²

It is interesting to note that all editions of the chapter on The Alphabetic Elements are almost identical, very little elaboration or explanation being added.

The intention of this chapter is not to make a careful phonetic analysis of the sounds of speech showing how Rush succeeded or failed in making his arrangement. Nor does it aim to carefully compare all

¹. Philosophy (Fifth Edition, 1859), 102.
². Idem, 102.
the classifications of writers who preceded Rush. Its purpose is to show how Rush's concept of radical and vanish assists in formulating his original arrangement of the alphabetic elements. Rush held that many classifications of sound that were in existence at the time of his writing made faulty distinctions, so he attempted to make more accurate observations. For instance, he objected to the belief that no consonant could be sounded without the help of a vowel.  

To begin with, then, Rush recognizes thirty-five elements of sound. These he divides into three groups: those which embrace the radical and vanish in its perfect form; those which employ the radical and vanish in varying degrees; and those which can contribute in no way to the radical and vanishing movement. The names of these groups as above described are: tonics, subtonics, and atonics.

The tonics, then, are those which embrace radical and vanish perfectly. Included below is a list of these as described by Rush. In order to be certain that there is no question as to which sound is meant, the International Phonetic Alphabet symbol is presented opposite each. The asterisk preceding a vowel indicates those which Rush considers diphthongs. Rush distinguishes a diphthong by describing it as one whose vanish has a different alphabetic element from that initiated by the radical. All whose radical and vanish are made on the same element are, therefore, monophthongs.

3. Idem, 103, Footnote.
TABLE I

The Tonics, according to Rush

<table>
<thead>
<tr>
<th>Tonic</th>
<th>Voicing</th>
</tr>
</thead>
<tbody>
<tr>
<td>*a-l</td>
<td>[o]</td>
</tr>
<tr>
<td>*a-r</td>
<td>[u]</td>
</tr>
<tr>
<td>*a-m</td>
<td>[e]</td>
</tr>
<tr>
<td>*a-s</td>
<td>[ai]</td>
</tr>
<tr>
<td>*a-n</td>
<td>[i]</td>
</tr>
<tr>
<td>*a-p</td>
<td>[i]</td>
</tr>
<tr>
<td>*a-t</td>
<td>[i]</td>
</tr>
<tr>
<td>*a-d</td>
<td>[i]</td>
</tr>
</tbody>
</table>

These tonics have various kinds of **vocality**, as Rush calls it, **vocality** being his term at first for what is commonly called **voicing** today. This term has an interesting history in Rush's texts, for it is presented in the first edition as an explanation of the process of vocalization, and keeps this restricted connotation until the sixth edition, where the author uses the term almost consistently to replace **quality**. When **vocality** became the term for **quality**, he had to do something with the **whisper**, which he recognized as not having **vocality**. This accounts for an alteration in the sixth edition of all chapters dealing with quality of voice. Just why he broadened his meaning of **vocality** to include the **qualities** is obscure, but it is an interesting incident to keep in mind when thinking of that term.

Rush describes **tonics** as being made with

… larynx and parts of the internal and external mouth, through which the air must pass in their formation.  

But he revised his description in the fifth edition:

They are produced by the joint functions of the larynx, fauces, and parts of the internal and external mouth.

---

The slight difference in wording of these two sentences, with the addition of "fauces" in the latter, is an example of the hundreds of small alterations Rush makes from one edition to the next. These show how his observation on the physiology of mind and voice gradually became more precise. In 1827 he did not recognize any movement of the fauces of the pharynx in his description of the tonics, but attributed their character only to laryngeal and oral motion. He gets closer to an anatomical description of voice the longer he observes the physiological functioning of that mechanism.

The tonics, then, are vocalized sounds which in themselves possess complete radical and vanishing movement. Because they possess this entire movement, tonics are capable of any kind of prolongation. They can have any type of inflection, force, or protraction of the radical or of the vanish. In other words, they are the basis for the greatest flexibility of intonation. Here is the first relationship between Rush's arrangement of alphabetic elements and expression.

The second group is the subtonics. They are listed below in a table which attempts to indicate several of their characteristics as described by Rush. Those marked with an asterisk have "unmixed vocality," which means that there is no aspiration in the sound. The ones marked by a (x) both in this table and in the third one (p. 106) are those plosive sounds which Rush calls abrupt. Those marked by a double asterisk are the subtonics which are purely nasal in their entire formation.

Mary Robb classifies b, d, and g among the nasals. Rush does

say (in all editions, as well as the fourth edition, page eighty-two, which Robb quotes) that the subtonic vocalities are purely nasal in m, n, ng, b, d, and g. He apparently is referring here, however, to their implosive positions during which he believes the vocality would involve nasal resonance due to the closed lips. The element b Rush says is the counterpart of p, varying only because of the vocality. Rush must consider the b to be oral in its explosion since it is identical with p and is also listed as an abrupt element. He describes the m, n, and ng as retaining their nasality throughout their entire production. Therefore, since b, d, g are nasal only in their subtonic vocality which is just employed in the implosive position, while m, n, ng are nasal in their entirety, the following table classifies as nasals only the m, n and ng.

TABLE II

The Subtonics, according to Rush

|x b-ow | [b]  | th-em | [θ] |
|x d-are | [d]  | a-z-ure | [z] |
|x g-ive | [g]  | **si-ng | [j] |
|v-ile | [v]  | *l-ove | [l] |
|z-one | [z]  | **m-sy | [m] |
|y-e | [j]  | **r-ct | [r] |
|w-o | [w]  | *r-ce | [r] |

These subtonics all have vocality, but they are not so capable of complete radical and vanishing movement as the tonics. When they are uttered separately they do have the radical and vanish, for the vocalization which begins each subtonic becomes the radical and the slight vocalized release which follows the subtonic proper becomes the

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7. Robb, op. cit., 92, gives no description of the subtonics on the basis of radical and vanish. Likewise, she does not point out that the concept of radical and vanish is basic to Rush's description of alphabetic elements, syllabication, intervals of inflection, and, in fact, to his entire vocal analysis.
vanish. The "little voice," as Rush calls this tense voicing in the release of a subtonic, Rush terms the vocula. It is quite likely that vocula is almost synonymous with "sohwa" [ɾ]. If the subtonic is uttered before a tonic, the vanish does not occur on the subtonic but is absorbed by the radical of the tonic which follows, as in go. The [ɾ] is the subtonic, the vanish of which is absorbed by the tonic [o]. Conversely, a tonic may sometimes have its vanishing movement in a subtonic which follows it, as in egg. The [ɾ] becomes the vanish of [e].

This observation of Rush that points out how sounds act differently when in relation to each other from the way they do when by themselves has a very modern flavor. It is not impossible that Rush's recognition of the radical and vanishing movement as a link between alphabetic elements is an attempt to describe the same aspect of phonetics that Kantner and West project in speaking of the necessity of considering sounds in their relation to each other.

It is also evident that the movements for the production of a given speech sound in isolation are somewhat different from those for that same sound in connected speech. Two factors are responsible for this. The first of these is the tendency of the mechanism to smooth out movements, and the second arises from the fact that the mechanism is constantly beginning the movement for a given sound from the position of a preceding sound and ending it by going to the position of the following sound.

Perhaps Rush made comparatively simple principles look too complicated to be practical, but there is little doubt that in the chapter on Alphabetic Elements he proposes observations that were

---


forerunners of present day thinking on the subject. It is not to be deduced that such concepts existing today can necessarily be traced to Rush. On the contrary, it is interesting to note that the full meaning of the radical and vanishing movement is not one of the ideas commonly associated with Rush today; indeed, the terms are rarely if ever heard today. Nor is his use of this concept to explain such matters as phonetic relationships, referred to in texts of today. And yet, it would appear that the most original contributions Rush made to the study of speech were related to the fundamental idea of the radical and vanish unit.

The last group is the atonic. Sounds belonging in this classification are aspirations. They are without vocalization. None of these are capable of any radical or vanishing movement, since there is no vocality present. Again, those marked with (x) are abrupt sounds as described by Rush. The list of atonics follows.

TABLE III

The Atonics, according to Rush

<table>
<thead>
<tr>
<th>X</th>
<th>u-p</th>
<th>[p]</th>
<th>ye-s</th>
<th>[s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>ou-t</td>
<td>[t]</td>
<td>wh-eat</td>
<td>[m]</td>
</tr>
<tr>
<td>X</td>
<td>ar-k</td>
<td>[k]</td>
<td>th-in</td>
<td>[θ]</td>
</tr>
<tr>
<td>i-f</td>
<td>[f]</td>
<td>pu-sh</td>
<td>[ʃ]</td>
<td></td>
</tr>
<tr>
<td>h-s</td>
<td>[h]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One final observation which Rush makes before leaving the alphabetic elements will be mentioned here because it is so helpful in understanding the whole concept of the radical and vanishing movement. He says that the conditions producing agreeable rhyming effects are partially explained by the radical and vanish. If there is an identity in the radical of the tonic, there is a rhyming effect as in dame and
The second type of rhyme is created by the vanishing movement being the same in two words, even though the radicals are different, as in cars and wars. Then, he says, even if the radical and vanish are both different, a rhyme is sometimes felt when words like good and blood are paired.

It might be summarized, then, that Rush makes his arrangement of thirty-five alphabetic elements on the basis of radical and vanish, and that by so doing he is developing an order which will best fit a description of expression. He therefore classifies tonics, subtonics, and atonics according to the degree in which the radical and vanishing movement can be employed by them.

Before leaving this subject it will be of interest to see how Rush's schedule compares with that of several important writers before him.

Steele was more concerned with the musical elements of voice than with a description of the phonetic units. However, it is interesting to note that like Rush he felt it necessary before considering the inflections of voice, to separate out the phonemes upon which these inflections could occur. And so he describes a vowel sound as:

... a simple sound capable of being continued invariably the same for a long time (for example, as long as the breath lasts), without any change of the organs; that is, without any movement of the throat, lips, or jaws.

A diphthong is made ... by blending two vowel sounds by a very quick pronunciation, into one.


11. Steele, Essay (1775), viii f.
Steele says that there are only five orthographic characters to describe the seven vowel sounds of the principal nations of Europe at that writing, and this was the cause for the difficulty in spellings which occurred. Although Rush found even more vowel sounds than did Steele, he is a little less careful about his symbolization of them. Table IV shows the similarity and differences of their description of pure and diphthongal vowel sounds.

Rush accounts for more vowel sounds, and recognizes that the "back" vowels, as they have been called more recently, are seldom pure. He does not, however, make a clear distinction between the true diphthongal vowels, and those which more correctly tend toward diphthongization. Steele, on the other hand, contributes more toward the attempt to give a new symbol to the separate sounds, but was less accurate in distinguishing the various vowels.

Again, Rush has a more spectacular method of describing the difference between a monophthong and a diphthong than does Steele, who says:

I will define a proper diphthong . . . to be made in speech, by the blending of two vowel sounds so intimately into one, that the ear shall hardly be able to distinguish more than one uniform sound; though, if produced for a longer time than usual, it will be found to continue in a sound different from that on which it began, or from its diphthong sound.12

But, as was explained above, Rush defines such matters on the basis of radical and vanishing movement.

Sheridan, writing somewhat later than Steele, makes an entirely different type of system. Before one can understand his scheme of the

12. Steele, Essay (1775), xi.
### TABLE IV

**Comparison of Alphabetic Elements as Considered by Steele and Rush**

#### STEELE

<table>
<thead>
<tr>
<th>Symbols</th>
<th>IPA</th>
<th>Steele</th>
<th>Key word</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ɔ]</td>
<td>a</td>
<td>all, small</td>
<td></td>
</tr>
<tr>
<td>[æ]</td>
<td>a</td>
<td>man, can</td>
<td></td>
</tr>
<tr>
<td>[ei]</td>
<td>e</td>
<td>may, day</td>
<td></td>
</tr>
<tr>
<td>[i]</td>
<td>i</td>
<td>keen</td>
<td></td>
</tr>
<tr>
<td>[ou]</td>
<td>o</td>
<td>open</td>
<td></td>
</tr>
<tr>
<td>[u]</td>
<td>u</td>
<td>tune, supreme</td>
<td></td>
</tr>
</tbody>
</table>

#### Diphthongs

<table>
<thead>
<tr>
<th>Symbols</th>
<th>IPA</th>
<th>Steele</th>
<th>Key word</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ai]</td>
<td>ai</td>
<td>I, fine</td>
<td></td>
</tr>
<tr>
<td>[A]</td>
<td>a (ə)</td>
<td>but, gut</td>
<td></td>
</tr>
<tr>
<td>[e]</td>
<td>ae</td>
<td>met, let</td>
<td></td>
</tr>
<tr>
<td>[jʊ]</td>
<td>iə</td>
<td>you, use</td>
<td></td>
</tr>
<tr>
<td>[au]</td>
<td>oə</td>
<td>how, bough</td>
<td></td>
</tr>
</tbody>
</table>

#### RUSH

<table>
<thead>
<tr>
<th>Symbols</th>
<th>IPA</th>
<th>Steele</th>
<th>Key word</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ɔ]</td>
<td>a</td>
<td>all*</td>
<td></td>
</tr>
<tr>
<td>[æ]</td>
<td>a</td>
<td>an*</td>
<td></td>
</tr>
<tr>
<td>[ei]</td>
<td>a</td>
<td>ale*</td>
<td></td>
</tr>
<tr>
<td>[i]</td>
<td>ee</td>
<td>eel*</td>
<td></td>
</tr>
<tr>
<td>[ou]</td>
<td>o</td>
<td>open*</td>
<td></td>
</tr>
<tr>
<td>[u]</td>
<td>oo</td>
<td>ooze</td>
<td></td>
</tr>
<tr>
<td>[u]</td>
<td>a</td>
<td>art*</td>
<td></td>
</tr>
<tr>
<td>[ə]</td>
<td>e</td>
<td>err</td>
<td></td>
</tr>
<tr>
<td>[ɛ]</td>
<td>e</td>
<td>end</td>
<td></td>
</tr>
<tr>
<td>[i]</td>
<td>i</td>
<td>in</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diphthongs</th>
<th>IPA</th>
<th>Steele</th>
<th>Key word</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ai]</td>
<td>ai</td>
<td>I</td>
<td>Isle</td>
</tr>
<tr>
<td>[au]</td>
<td>ou</td>
<td>our</td>
<td></td>
</tr>
</tbody>
</table>

*Also called diphthongs by Rush—all others are monophthongs.*

---

13. *Idem, x.*

alphabet, it is necessary to know his plan for phonetic symbols to distinguish each vowel. The following shows that order.15

<table>
<thead>
<tr>
<th>Scheme of Vowels according to Sheridan</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>a</td>
</tr>
<tr>
<td>e</td>
</tr>
<tr>
<td>i</td>
</tr>
<tr>
<td>o</td>
</tr>
<tr>
<td>u</td>
</tr>
<tr>
<td>y</td>
</tr>
</tbody>
</table>

The number over each key word labels the vowel so it will be recognised in later reference as the sound in the given key word.

The following, then, is his scheme of the alphabet which he develops at length.

---

TABLE VI

Scheme of the Alphabet according to Sheridan

Number of simple sounds in our tongue, 28

9 vowels, a a e o o e i u
  hall hat hate here note prove bet sit cub

19 consonants eb ed ef eg ek el em en ep er es et ev ez eth eth esh eng

2 superfluous c, which has the power of ek or es;
  q, that of ek before u

2 compound j, which stands for edsh
  x, for ks or gs

1 no letter, h merely an aspiration

Consonants divided into Mutes and Semivowels

6 mutes, eb, ed eg ek ep et

3 pure mutes, ek ep et

3 impure mutes, eb ed eg

13 semivowels, of el en er es ev ez eth eth esh ez ing

9 vocal semivowels, el em en er ev es ev eth esh ing

4 aspirated, ef es eth esh

Divided again into

4 labial, eb ep ev ef

8 dental, ed et eth eth ez efs esh esh

4 palatine, eg ek el er

3 nasal, em en ing

From this arrangement of Sheridan's it can be seen that less effort was made by him than by either Steele or Rush to plan the system of alphabetic elements to incorporate a concept of expression. Smart

gives a system similar to that of Sheridan. It, too, has no particular bearing on his later theory of elocution.

**TABLE VII**

A Table of the Sixteen Simple and Diphthongal Vowel Sounds, according to Smart

<table>
<thead>
<tr>
<th>Sound</th>
<th>Orthographic Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>a</td>
</tr>
<tr>
<td>2nd</td>
<td>a</td>
</tr>
<tr>
<td>3rd</td>
<td>a</td>
</tr>
<tr>
<td>4th</td>
<td>a</td>
</tr>
<tr>
<td>5th</td>
<td>e</td>
</tr>
<tr>
<td>6th</td>
<td>e</td>
</tr>
<tr>
<td>7th</td>
<td>I</td>
</tr>
<tr>
<td>8th</td>
<td>I</td>
</tr>
<tr>
<td>9th</td>
<td>o</td>
</tr>
<tr>
<td>10th</td>
<td>o</td>
</tr>
<tr>
<td>11th</td>
<td>o</td>
</tr>
<tr>
<td>12th</td>
<td>u</td>
</tr>
<tr>
<td>13th</td>
<td>u</td>
</tr>
<tr>
<td>14th</td>
<td>u</td>
</tr>
<tr>
<td>15th</td>
<td>oi</td>
</tr>
<tr>
<td>16th</td>
<td>ou</td>
</tr>
</tbody>
</table>

---

TABLE VIII

A Table of the Twenty-two Consonant Sounds,

According to Smart* 18

<table>
<thead>
<tr>
<th>No.</th>
<th>Consonant Sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>h</td>
</tr>
<tr>
<td>2</td>
<td>consonant sounds, founded on the bases of vowel sounds.</td>
</tr>
<tr>
<td>3</td>
<td>vocal or flat, ng</td>
</tr>
<tr>
<td>4</td>
<td>aspirated or sharp, dental*</td>
</tr>
<tr>
<td>5</td>
<td>vocal or flat, dental*</td>
</tr>
<tr>
<td>6</td>
<td>aspirated or sharp, dental*</td>
</tr>
<tr>
<td>7</td>
<td>vocal or flat, dental*</td>
</tr>
<tr>
<td>8</td>
<td>aspirated or sharp, labial</td>
</tr>
<tr>
<td>9</td>
<td>vocal or flat, labial</td>
</tr>
<tr>
<td>10</td>
<td>aspirated or sharp, dental</td>
</tr>
<tr>
<td>11</td>
<td>vocal or flat, dental</td>
</tr>
<tr>
<td>12</td>
<td>aspirated or sharp, dental</td>
</tr>
<tr>
<td>13</td>
<td>vocal or flat, dental</td>
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<td>14</td>
<td>aspirated or sharp, dental</td>
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<td>15</td>
<td>vocal or flat, dental</td>
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<td>16</td>
<td>aspirated or sharp, dental</td>
</tr>
<tr>
<td>17</td>
<td>sharp, labial</td>
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<tr>
<td>18</td>
<td>sharp, labial</td>
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<td>19</td>
<td>sharp, guttural</td>
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<td>20</td>
<td>sharp, guttural</td>
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<tr>
<td>21</td>
<td>sharp, dental</td>
</tr>
<tr>
<td>22</td>
<td>sharp, dental</td>
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</table>

*A dental is a sound formed by touching any part of the teeth or gums with the tongue;—a palatal, by touching the palate;—a labial, is where the lips effect the consonant;—and a guttural, where it is effected in or near the throat;—a labio-nasal, is where the sound goes through the nose, while the lips meet, &c.

These comparisons have been made for two major reasons.

First, to show how the subject of phonetic analysis was made by several writers before Rush; and second, to point out how Rush's attempt to set his system upon the radical and vanish concept related his scheme to the further responsibility he felt for discovering the physiological functions of voice, or the expression of the voice.

In summary, it has been shown how Rush describes the alphabetic elements on the basis of the radical and vanish concept. The degree to which a sound is capable of employing the radical and vanish movement is the factor which determines his classification of tonic, subtonic and atonic. Tables are given to aid the discussion in indicating which sounds Rush delegates to each class, and the systems of Sheridan, Steele and Smart were compared and contrasted with that of Rush.

In addition to his clarification of nomenclature, and his basic concept of radical and vanish, Rush should be remembered as original in his consideration of the alphabetic elements.
Chapter 8

Of Syllabication as Explained by Radical and Vanish

It has been shown in the preceding two chapters that Rush's chief originality lay in his conception of the radical and vanishing movement and its application to the alphabetic elements of voice. It is now to be seen how his "Doctrine of Syllabication" is explained on the basis of that concept.

Rush has not received the attention today for his teaching in the phonetic aspect of the science of speech that he has for such ideas as the qualities and inflections of the voice. This is to be wondered at, since there seems to be more evidence of his originality here than in the later portions of his book. Perhaps syllabication was not so popular a subject in the elocution classes of that day, nor was there a particular need to teach it. Consequently, application of the "Doctrine of Syllabication" to the teaching of elocution was omitted by the early followers of Rush, and the doctrine itself has not come down to us today as have some of the rest of his theories.

The fact that Barber, who was a careful student of Rush, and whose Grammar of Elocution was a faithful adaptation of Rush's Philosophy, omitted the material on syllabication in his book gives strong evidence in support of the above contention. Barber said of the Rush chapter on syllabication:

Some subjects treated by Dr. Rush, with great ability, I have left untouched. I consider his section on Syllabication, one of the most luminous displays of philosophical originality and acuteness, to be found in his work; but it did not appear indispensably necessary to the special object I had in view . . .

Whatever the cause for the concept's not having gained modern prominence, it still remains as one of the chief points of originality in Rush's philosophy and deserves careful attention in this chapter. Again it is significant that aside from minor alterations only one paragraph is added to Rush's discussion of syllabication between the first and the fifth edition. Here again it can be observed how those ideas which were entirely original with Rush were fairly completely conceived from the beginning.

Rush opens his discussion of the "Doctrine of Syllabication" by asking four important questions.

What are the particular functions of the voice that produce the characteristics of syllables?

What determines their length?

Why are syllables limited in length, otherwise than by the term of expiration: and what produces their ordinary length, when there is no obstruction to the further continuation of the sound of tonic and subtonic elements?

And finally, what prescribes the rule that allows but one accent to a syllable?2

The remaining discussion of the subject of syllabication will follow a plan outlined by these questions.

What creates a syllable? Rush answers

It is the concrete movement of the elementary sounds, or the radical and vanishing function of the voice, which produces those successive impulses of speech called syllables.3

Whenever a complete radical and vanishing movement has been effected, a syllable is created. If the radical and vanishing movement

is understood, this becomes a simple definition of the controversial issue on the constituents of a syllable. Rush further claims that the reason two tonics in succession cause two syllables, as in "aorta," is that by nature each tonic has its own radical and vanishing movement. Whenever a radical and vanishing movement has been completed a syllable results, hence, two syllables occur when two tonics are adjacent. On the other hand, an atonic by itself is incapable of forming a syllable, for it possesses no radical and vanish and can make no concrete movement of sound.

Perhaps such an explanation seems obvious now that more has been written on the subject, but when the confusion created by Sheridan, for instance, is noted, Barber's appreciation of Rush's theory can be understood. Sheridan says: "The essence of a syllable consists in articulation only, for every articulate sound of course forms a syllable." Sheridan does not make clear just how articulation forms the syllable. In another book he makes a further explanation of the constituents of a syllable.

As a letter is a simple sound, which cannot be divided into other simple sounds; so a syllable is an articulate sound, excepting when formed by a diphthong. Every vowel is an articulate sound, and can of itself form a syllable; but the first, or short vowels, seldom form syllables of themselves, except the particle a as a man, a house. The second and third, or the long vowels, and diphthongs, form syllables without the conjunction of consonants. A syllable can have but one vowel, or diphthong, by its definition; but it may contain four, or even five consonants, whose sounds may be distinctly perceived.

Here he is saying somewhat the same thing that Rush says concerning the character of a syllable, but he does not give a tangible

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5. Sheridan, Art of Reading (Fifth Edition, 1798), 45.
and precise definition. There are too many exceptions connected with his explanation. In continuing with his description of a syllable, Sheridan becomes involved in the question of the quality and strength of the sound produced:

In syllables, as in letters, two things are chiefly to be considered; quality, and quantity. The quality is to be considered in a twofold manner; either with regard to sweetness and harshness; or strength and weakness. With regard to sweetness, the union of the long vowels and diphthongs, with the semivowels, forms the most pleasing sounds; and their different values, with respect to each other, may be estimated by the rank of their component letters, which has already been settled. Whilst the union of short vowels with the mutes, and the liquid r, forms the harsher and less pleasing syllables. The different intermixture of these, that is, of the long vowels, and diphthongs with mutes; or of short vowels with semivowels, compose an infinite variety of sounds of different degrees of sweetness, according to the nature and predominance of the letters which form them.

Their strength and weakness also depend upon the same principle, only with a reversal of the rule. Those which contribute most to sweetness, are inferior to their opposites in strength. Thus the short vowels in union with mutes, and aspirated semivowels, and the liquid r, form the most forcible sounds; whilst those composed of the long vowels, and semivowels, are inferior in strength, though superior in sweetness. Their strength depends upon a sudden and more forcible impetus of the breath and voice, which is the case of the short vowels preceding the mutes, and aspirate semivowels.6

Rush's interpretation of the quality of syllables will be mentioned presently. There is not the difficulty of understanding his definition of a syllable as there is in comprehending Sheridan's, for Sheridan did not at any time isolate the issue and clarify his opinion on what were the particular characteristics that created a syllable. Rush, in basing his theory of the syllable on the radical and vanish, has given a definition which for him is both specific and comprehensive.

The same lack of clarity is found in Sheridan's concern with

the length of syllables. He says:

'It is by accent chiefly that the quantity of our syllables is regulated; but not according to the mistaken rule laid down by all who have written on the subject, that the accent always makes the syllable long; than which there cannot be anything more false.'

He seems to be saying that the point at which the accent is applied, or percussion as he calls it, to distinguish it from inflection, is the deciding factor in determining the syllable's length. "The quantity depends upon the seat of the accent." If it is on the vowel the quantity is long, but if it is on the consonant it depends on the nature of the consonant as to whether the syllable will be long or short. When he comes to explaining what kind of consonants create long syllables and what kind create short syllables, he is approaching the four-point program which Rush outlines to give reason for the length of syllables. Sheridan continues, then:

'By a short consonant I mean one whose sound can not be continued after the vowel, such as o or k p t, as ac ap, at - whilst that of long consonants can, as el en en, er, ev, &c.'

Before proceeding with Rush's analysis of the contributing factors to the length of a syllable, it would be interesting to see how Monboddo treats the problem. Monboddo, it will be remembered, was the one who engaged Sir Joshua Steele in argument over the melody of language, and is therefore one of the earliest of eighteenth century writers in the field of speech. He says:

7. Sheridan, Lectures on Elocution (1781), 52.
8. Idem, 52.
The next thing to be considered is, what makes a syllable long or short? And it is either the vowel or the consonants which follow after the word. If the vowel be long, the syllable is necessarily long, whether any consonants follow after the vowel or not. If, on the other hand, the vowel be short, the syllable is short, unless two or more consonants follow, either in the same syllable, or in a subsequent syllable, which necessarily retard the pronunciation so much, as to make the syllable long; but it is not so long as if the vowel were long: and in some cases it is shortened, as when one of the two consonants following is a liquid; or though both be mute, it sometimes happens, that if the acute accent is put upon it, the syllable is shortened, as in the case of the word optimi, and some others, which I observed before.  

And further:

A vowel is long two ways; either by continuing the impulse of the breath double the time that is spent in pronouncing of a short vowel, and so enunciating the vowel in the manner it was ancienly written by the Latins, as I have already observed, or by incorporating it with another vowel, and making it what is called a diphthong. If neither of these was done, it was a short vowel.  

The lack of perspicuity in both Sheridan and Monboddo is evident. But then, Rush is also often criticized for his intricate and involved systematic explanations. How does Rush answer the question, "What determines the length of a syllable?" If the true meaning of the radical and vanishing movement and the classifications of tonics, subtonics and atonics has been thoroughly understood, the following four-point explanation of length of syllables should be quite simple. For it is upon the arrangement of these literal constituents that Rush bases his belief.

Aside from the complete radical and vanishing movement of a

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tonic which alone creates a syllable. Rush shows four ways by which that tonic can be lengthened to create thereby a longer syllable.

First, the addition of an atomic to either one side or the other, or to both sides, of the tonic will lengthen the sound without "destroying its singleness of impulse." This effect can be quickly discernible in the addition of [f] to [εi] creating the syllables [fei]; or, [f] and [a] to the [εi] forming the new word [feis]. Thus, a word still short in effect and of only one syllable is created by the addition of atomic to the tonic.

Second, the "junction of subtonic elements to tonics" will add to the length of syllables. Here is where Rush's concept of radical and vanishing movement again proves convenient and logical in terms of dynamic phonetics. It was learned earlier that the subtonics are capable of radical and vanish as are the tonics. It was also learned by Rush's definition of a syllable that as soon as one radical and vanishing movement was completed a syllable was formed. How then can subtonics be joined to tonics without the creation of a second syllable? The subtonic, if preceding the tonic, furnishes the radical movement. The "guttural murmur," (as Rush's predecessors call it) which is the vocality of the subtonic, is the radical, but the vocule which follows a subtonic when uttered alone and which would therefore furnish the vanishing movement, is not uttered, but is replaced by the following tonic. The tonic, therefore, becomes the vanishing movement and thus


completes the syllable. If another subtonic is added to follow the
tonic, the vocality of the subtonic is blended with the tonic before
the latter reaches the end of the interval in its vanishing movement
and thus a new syllable is still not created. An example of this
process would be the addition first of [l] to [a] forming [la],
and then adding [v] as the second subtonic to follow the tonic so that
[lav] is created.

Sheridan had a word of warning concerning the presence of
vocalised consonants after a vowel. He felt that if the consonant
were excessively prolonged it would occasion the feeling of a second
syllable even though one would not normally exist at that point.

None of them [consonants] are to be prolonged except
when the accent is upon them; which can only happen when they
are preceded by a short sounding vowel; as, tell, can, love.
When a long sound precedes, the voice must dwell upon the
vowel, and take the consonant into the syllable in its shortest
sound; otherwise were they both dwelt upon, the syllable would
take up the time of two long sounds, and would therefore seem
to be two; as vär-lø, räl-n, bræ-vø. ¹⁴

Rush would probably not subscribe to that belief, since he held
that as long as the radical and vanishing movement was not complete,
a new syllable could not be started.

The third way of lengthening the syllable, according to Rush,
is by adding any of the abrupt elements either to precede or to follow
the tonic. The abrupt sounds, it will be recalled, are those called
today by the name plosives. These are either with or without vocality.
If the abrupt atonic is added to the tonic, the shortest type of
syllable will be created for there is no opportunity for the protraction

¹⁴. Sheridan, Rhetorical Grammar (1763), 93.
of either the radical or the vanishing movement. Thus, [kat], [ped], [tik] are the shortest syllables of the language, due to the radical being started abruptly and the vanish being cut off by the atonic which follows. In a later chapter, Rush calls this class of syllables immutables. In the case of the abrupt subtonic the shortening effect is not created so completely, because of the vocality of the subtonic contributing to either the radical or vanish of the tonic. These he calls, in his chapter on time, mutables. Rush might have included this third group in the discussion of atonic and subtonic, but he probably felt that the abrupt elements should be treated separately because of their plosive character.

"The fourth mode of combining elements is by the union of all the four kinds in one syllable."15 In the word strength this is the case. The word is but one syllable. Two atonics are followed by a subtonic which initiates the radical. Then the tonic lets the radical blend into the vanish, which completes the pitch interval in the vocality of the following subtonic. The whole voicing is stopped then by the atonic at the end. If all four modes are to be used as in the above example, the atonics must be at the extremes, for if a subtonic should precede the atonic, a second syllable would result. This would be due to a radical and vanishing movement being made complete in the subtonic by the lack of vocality in the atomic which divided the subtonic from the tonic. Such would be the case if in the word strength, normally pronounced [streŋθ], the subtonic r were placed first. Such a shift would cause the word to be pronounced [strenθ], and thus to be

composed of two syllables.

Rush has thus answered two of his questions on the basis of the radical and vanishing movement. He has described the constituents of a syllable and the factors capable of varying a syllable's length. He then explains why a syllable has a limited length—why it cannot be protracted indefinitely. He gives two reasons. The first is that the addition of many subtonics would make the syllable too cumbersome. A new syllable would not be created by the addition of the subtonics, but, in an effort to balance this overabundance of subtonics, there would be a protraction of the radical, and hence, the effect of recitative. The second reason why a syllable's length is limited is that the presence of an atomic would break the vocality and therefore cause a completion of the radical and vanishing movement. When this movement is complete, a syllable is made and any further progression of sound would be the start of a second syllable. Since atomics and subtonics are the only other types of sounds that follow tonics, the two explanations above seem satisfactory, according to Rush, to describe the limitation of a syllable's length.

In answer to his final question as to what ordains that there be but one accent to a syllable, Rush shows again how it is the radical and vanishing movement which prescribes such a rule. Accent, he says, can be placed on the radical and vanish in various ways, none of which alters the singleness of effect:

A further consideration of the Radical and Vanishing movement, will inform us why there is, ordinarily, but one effort of accentual stress on each syllable. It was shown in the last section that the form of force called Accent, is variously laid on the concrete. First; by the abrupt explosion of the radical. Second; by magnifying, so to speak, the whole of the concrete, the proportional forces of the radical and
vanish remaining unaltered. Third; by giving more force to the middle of the concrete. Fourth; by an abrupt stress on the radical, together with an increased force on the vanish of the same concrete. Fifth; by greater stress on the vanishing portion. Sixth; by making the whole concrete of the same fullness as the radical. Five of these forms do not alter the singleness of the accentual impression. Something like an exception to the rule of a single accent seems to exist in the fourth, as will be particularly noticed under the future head of Expression; but this condition if an exception, being of rare occurrence, is by no means contemplated here, in looking at the ordinary phenomena of syllabic speech.18

These are quoted from the fifth edition since the list is there given as six categories. An addition was made by forming the fifth and sixth item out of what originally had been presented together as point five in the first edition. Rush felt, apparently, that normally these six forms of accent were the only ones possible in one unit of the radical and vanishing movement. Since the new syllable would be created after a radical and vanish had been completed, any accent that was made beyond those forms described above would be on the new syllable. Hence, only one accent would be possible on one syllable.

After having answered the questions he had asked concerning the syllables, Rush discussed another item before closing his chapter on syllabication. He pointed out what he thought to be the reason for varying effects in quality or agreeableness of syllables and the "gliding continuity of voice."17 These are mentioned only briefly here, since they do not further greatly the explanation of his doctrine of syllabication; but they should be included in this discussion if a full evaluation of his chapter is to be made.


17. Philosophy (First Edition, 1827), 82.
The first difference in the quality of a syllable is created by the presence of the tonics alone. Rush says in this case that there is no difference in the agreeableness of the sound, for the diphthongs are as pleasant as pure vowels, even though the concrete rise of a diphthong is composed of two different alphabetic elements.

The second type of syllable is one in which the tonic is initial and is followed by one or two subtonics, as in [əlm]. This forms an "easy mingling of their constituents" and consequently a pleasant blending effect.

The third type is that in which a tonic is preceded and followed by a subtonic as in [memz], [rɛlm]. A continuant effect is created by this combination also.

The fourth arrangement of elements is not so agreeable, Rush says, for tonics, subtonics, and atonics are combined. This presence of the atonic prevents the equability of the concrete and consequently a less smooth effect. An example of this composite type is in strength, [strɛŋθ].

A fifth arrangement is found in the second syllable of little, in which no tonic is present. Such a combination lacks strength, he says.

Rush also has a word to say about the glide, which he does not call by that name, but which he discusses in showing the "various degrees in the smoothness of the syllabic impulse." For instance, in the word flower he shows how two syllables are created if the w subtonic

18. Idem, 82.
is inserted between the two tonics. In other words, if the o is uttered as a distinct diphthong, [au], with the [u] as a protracted vanish movement, a complete radical and vanish results and a full syllable is formed. Thus, when the [ɔ] is sounded a new radical is begun and a second syllable ensues. This is another way of explaining the w glide, and one which approaches the Kantner and West description, which says that the w glide is composed of a vowel plus [u].

Rush further says that if the o in rising through the concrete interval to the vanishing movement blends the [u] of the diphthong with the final er, only one syllable results. The final [r] becomes the vanish of [ə] and the word is spoken as one syllable, thus [flaʊr].

He adds to the foregoing comment on the word flower, the explanation of how a y is often inserted between awkward combinations of successive tonics as in aorta. This reduces the necessity of a point of junction in vocality in order to start the radical of the second tonic after the vanish of the preceding tonic. If the y is inserted, a continuous utterance is created with the y, [i], becoming the vanish of the preceding tonic.

These two incidental observations of Rush show his recognition of the concept of glide, for he explains its existence on the basis of the reaction of the radical and vanishing movement to these particular alphabetic constructions.

In the problem of re-evaluating Rush's vocal philosophy, then, this chapter has attempted to describe his "Doctrine of Syllabication." Some evidence of the confusion of these issues which had existed prior to Rush has been supplied. But the main effort has been to show how

Rush explained the phenomenon of syllabication on the basis of his concept of the radical and vanishing movement.

Rush's chapter on syllabication can be considered as original with him. Whether his philosophy of voice is accepted or rejected today, this portion of it deserves at least equal attention with the rest of his system.
Chapter 9

Of the Specific Intervals of Inflection

Perhaps some of the most caustic criticism of Rush’s vocal analysis is directed against his description of the specific intervals of inflection. Rush believed that the voice followed general patterns of pitch, and that these could be recognized by a carefully trained ear. In a later discussion in this study, his full interpretation of the expressive powers of the various forms of pitch change will be compared and contrasted with the concepts of other writers. The main purpose of this present chapter, however, is to point out that Rush’s analysis of inflection, which he makes on the basis of specific musical intervals, is a new and original contribution. It is not only new, but it is in definite opposition to most of the opinion of his day.

As was noted previously, Rush believed that the voice in speech was never capable of a perfect monotone, on account of the constant progress of the radical and vanishing movement. On the other hand, he believed that a monotone effect would be created by the repeated initiation of the radical pitch on the same note. This monotone effect is the result of a particular mental or emotional state of the speaker and is consequently expressive of certain conditions.

The voice, however, is never a true monotone, but always has the radical of the second syllable initiated on the note at which the vanish of the preceding syllable came to rest. This creates a concrete movement through intervals of varying degrees in the manner known as "slides." Now this concrete slide might be through intervals varying

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1. See p. 94.
all the way from the smallest discernible enharmonic interval to an octave or more. The common interval of unemotional speech, Rush believes, is that of a second, or one full tone's difference from the radical of one syllable to the radical of the next. Each interval, ranging from the enharmonic to the octave, is created by thoughts and feelings when given natural expression. Thoughts and emotions tend to express themselves in a definite plan of inflection that not only involves the direction which an inflection might take, but which falls within certain intervals of pitch change.

It is these intervals which Rush claims are observable and describable. And, in accordance with his belief in a system of instruction, practice in making these intervals will make a person more capable of observing them and will create a voice more capable of good expression. It is to be repeated here that Rush did not prescribe practice on such details as the use of the rising interval of the fifth, for example, that it might later be employed to create the specific effect attributed to it; but, rather, he recommended studying these intervals of pitch and practicing them for the purpose of sharpening one's powers of observation of sound and increasing one's capacity and flexibility of voice. Rush says: "When the voice is prepared by elementary practice, thoughts and passions find the confirmed and pliant means ready to effect a satisfactory and elegant accomplishment of their purpose." Rush has, then, analyzed the inflections of voice and pointed out certain general meanings which are usually created by

2. See Chapter 4.

specific intervals of pitch change. These intervals are based on the
diatonic and chromatic scales and can easily be described in musical
terms. The various combinations of inflection resulting from varying
the direction of movement of pitch is part of a later chapter, but for
the moment it would be well to see what general effects Rush lists as
being the results of these specific intervals. The following outline
shows the relations between these intervals of inflection and their
general effects:

The Rising Intervals:

Of the Octave:

- For expression of interrogation.
- For emphasis.
- For "declaratory sentences which are made
interrogative by intonation."
- For sentences in which the "sentiments of the
speaker are so poised between certainty and doubt
that he admits by an interrogative movement, the
hesitation of inquiry, in the very confidence of
assertion."
- For questions when accompanied by sneer, contempt,
mirth, raillery and the temper or triumph of quick
and of peevish argument.
- "The octave being the widest interval of the speaking
scale, is significant of the greatest vehemence or
earnestness of an interrogative sense."

Of the Fifth:

- For the normal interrogation ... possessing less
of the smart inquisitiveness of the octave.
- For emphasis.
- For expression of wonder and admiration (without the
flippancy of the octave).
- Is capable of energy and is always more dignified.

4. See p. 75.
6. Idem, 211.
Of the Third: 7

- Same as the fifth, but is less strong since it is smaller interval.
- Merely a sign of simple interrogation.
- The most common form of emphatic intonation.

Of the Second: 8

- "It is the basis for what I have called diatonic melody and in correct and agreeable elocution, is more frequently used than any other interval; since it is appropriate to all those parts of discourse which convey the plain thoughts of the speaker . . . ."

Of the Semitone; and of the Chromatic Melody Founded Thereon: 9

- For the expression of complaint, pity, grief, plaintive supplication, and other sentiments congenial with these.
- The intonation by the concrete semitone, is universally the symbol of nature for animal distress.
- Used also for the expression of gentleness of feeling.
- Never used for great energy, harshness or impetuosity of thought.
- Usually creates the slow time and the long quantity in utterance.

The Downward Intervals:

Of the Octave: 10

- "This interval, in addition to the expression, ascribed generally to the downward movement, conveys in the colloquial uses of the voice, the vivacity of facetious surprise, as in the instance of the phrase 'well done.'"
- "In its more dignified uses, there is the highest degree of admiration or astonishment, either alone, or united with other sentiments . . . ."

10. Idem, 264.
Of the Fifth:

- Same as octave, but "... clothes its feelings of smiling surprise and of admiration whether it be passive or repelling, with more dignity than is borne with the octave."

Of the Third:

- Carries "the moderated expression of the Fifth."
- "The dignity of vocal character, like that of personal gesture, consists not only in the abatement of force, and in the slowness of time, but in the limitation within the widest range of movement."
- When the descent of the third is performed on a syllable of long quantity, at the end of a clause which contains a complete sense, it indicates termination while not altogether destroying the expectation of a further continuation. It creates a sort of feeble cadence.
- As a means of emphatic distinction, merely for the purpose of varying the effect of intonation.

Of the Second and Semitone:

- Most important as the last constituent of the cadence, when made either in the diatonic or chromatic species.
- For purposes of variety in the current chromatic melody.

Thus Rush laid considerable emphasis upon the observation of specific intervals. He was sure that the voice moved in discernible degrees and that even the smallest of intervals could be measured by the acute ear. Such an opinion was held by no other person at that time so far as the writer has been able to discover. As a matter of fact, it seemed rather acceptable that one of the main differences between speech and song lay in the fact that song made the intervals discernible, whereas in speech such was impossible. Song prolonged...
individual notes, and the movement through intervals was more deliberate and therefore observable. But in speech the movement was too rapid to be heard by the ear.

The opinion that voice could not be distinguished by intervals is of ancient origin. It is quite probable that Rush was completely original in his belief that in speaking, pitch could be described on the basis of specific musical intervals.

Monboddo refers frequently to such Greek writers as Dionysius of Halicarnassus, Aristophanes of Byzantium, and Aristoxenus on the subject of melody of speech, and presents their points of view on the interval in speech and song. He refers to Dionysius’ treatise on composition, in the eleventh section of which he indicates that in music the intervals are exactly marked and rise to a height of at least an octave, whereas in speech the intervals are not clearly marked, and never rise to the height of even a fifth. Monboddo continues his appraisal of Greek opinion as he refers to Aristoxenus in the following:

But there is another difference between the melody of speech and of music observed by Aristoxenus, and other ancient writers upon music, that the melody of speech is συνέχεια, or continued, while musical melody is διαστάσεως or distinguished by intervals; by which is meant, that in speech the notes succeed one another so quickly, that the intervals can hardly be perceived; whereas the intervals in music are easily distinguishable, the different notes being more exactly marked, and the voice resting longer upon them. And, therefore, says our author, the language of passion, is more musical than common speech; because, when we are affected by passion, we generally dwell longer upon the same note. 14

Monboddo seems quite on the verge of believing that the interval could be observable in speech, for he says in the next reference that

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14. Monboddo, Essays (1774), 286. This Aristoxenus treatise is on "Harmonies," page 9, in the collection of Meibomius.
the voice does make pitch changes which a musician could recognise. He may not have been making the distinction that it took only a musical ear to hear the accurate intervals, but it would seem that he was implying that the reason intervals could not be heard in speech was that speakers were not trained to recognize them. If this were his contention, he is the only one who approaches Rush's point of view.

Monboddo says:

As to accents in English, Mr. Foster, from a partiality, very excusable, to his country, and its language, would fain persuade us, that in English there are accents such as in Greek and Latin. But to me it is evident that there are none such; by which I mean that we have no accents upon syllables, which are musical tones, differing in acuteness or gravity. For though, no doubt, there are changes of voice in our speaking from acute to grave, and vice versa, of which a musician could mark the intervals, these changes are not upon syllables, but upon words or sentences. And they are the tones of passion or sentiment, which, as I observed, are to be distinguished from the accents we are speaking of.\15

It should be noted in this quotation how Monboddo objects to the inference that Greek accent was ever used in the English tongue. He thought that intervals of pitch change were possible only between words and not at all within words. This concept was one of the major issues in his controversy with Steele. Steele wanted to prove that the English tongue had precisely the same type of accent as the Greek, and the major portion of his study is devoted to developing that idea. But he could not subscribe to any theory that involved discernible intervals in speech.

As a matter of fact, one of the most basic differences of opinion between Rush and Steele lies in these observations on the measurability.

15. Idem, 298.
of the slides of the voice. Rush's whole analysis of inflections is based upon his having heard the slides as they were made to move from one note of the musical scale to another note, and upon his having heard their musical values, and associated them with the interpretive meanings. On the other hand, Steele says:

I was of the opinion that, in pronunciation, the voice moved up and down by such small gradations as that, whether the degrees were by quarters of a diatonic tone, or by divisions, they seemed, in comparison with those of our chromatic-diatonic, to be by imperceptible slides. 

Rush accuses Steele of letting his attentions fall on the controversy he was having with Monboddo, rather than giving way to his true observation of nature.

Had he pursued truth by observation instead of controversy; had he not let his attention fall into the deviating course of argument; ... but kept his undeviating ear on nature, she would at last have led him up to the light.

But the character of Rush's marginal notes in his copy of Steele's Essay indicates that he, too, was stimulated to distinct contradiction of much that Steele proposed. It is conceivable that his extremely careful system of inflections might be an outgrowth of his urge to prove that Steele and others were wrong.

In any case, the following statement by Steele is strongly counteracted by Rush in a penciled footnote in his copy of the Essay:

Whereas the melody of speech moves rapidly up and down by slides, wherein no graduated distinction of tones or semitones can be measured by the ear; nor does the voice (in our language) ever dwell distinctly, for any perceptible space of time, on any certain level or uniform tone, except the last

17. Philosophy (First Edition, 1827), viii.
tone on which the speaker ends or makes a pause.18

The footnote reads thus:

A true account of speech is -- that its intonation is the adaptation of the concrete to the diatonic scale.19

(See Photostat No. 4)

Rush believed that Steele tried too intensely to liken the phenomenon of speech to that of music. Steele expected speech to sound like music, and when he listened to sounds, if speech did not make the definite movements that music did, he could not perceive what actually was the speech-musical movement. Steele attempts to explain, for example, that if the fundamental key-note were sounded as a continuous bass tone at the same time speech was uttered in its various slides, this fundamental note would always be in tune with the slide, for the slides could not be distinguishable on any given interval. This, Steele says, is like the bass tone that can be sounded in music while "... the cantus takes a rapid flight, either up or down, through all the notes of the octave."20 Rush opposes such a musical comparison in a marginal note: "See how Mr. S. was misled by the authority of music."21 In objecting to some of Steele's concepts such as this one, Rush was led to a more careful observation of what he considered to be the true intervals of speech inflections. He felt that

19. Rush's marginal notation in his personal copy of Steele, 4.
20. Steele, Essay (1775), 36.
21. Rush's marginal notation in his personal copy of Steele, 36.
this had been Steele's greatest mistake and that it was due to his
having compared speech too closely with music.

The breach between the theories of Rush and Steele was widened
still further by the repudiation of Steele's that a slight variation
in the degree of an inflection would make no difference in the meaning
conveyed.

... for there is a great latitude which may be
used without any seeming blemish; as to whether the slide runs
a quarter of a tone or three quarters, up and down, more or
less, seems of little consequence, provided the proprieties of
quantity and cadence, are duly observed.22

Rush said in the margin here: "No, Joshua, that won't do."23 And in
the text of his own Philosophy, one can see where Rush has made
specific indications that there is a difference between the intervals,
as was seen in the outline of intervals shown above. It is curious to
observe that throughout Steele's Essay, his musical symbolisation of
inflection has never once admitted that speech slides move through only
a semitone or even a tone. Apparently the monotone in good speech is
an impossibility to Steele, for he never describes it. Rush makes just
that comment: "Perhaps not one instance of a tone, or second in all
these notations."24 Steele, as indicated in an earlier quotation, hears
the voice as in constant pitch movement. And he appears to hear greater
inflections during the expression of passion than occur in normal
speech. This is in diametric opposition to the belief held by Rush
that the greater the emotion the less the inflectional change. Steele

23. Rush's marginal notation in his personal copy of Steele, 30.
recorded normal speech on the interval of the fifth, after Dionysius (see Chapter Twelve), but felt that impassioned speech used a wider range. He says:

I found my slides in common discourse went about a fifth (of the diatonic scale) above the level or key-note, and about a seventh below it; but if impassioned, it ran (sic) two whole tones higher, which made in the whole extent a compass of 13 notes, or octave and sixth.

But says Rush in a heavily penciled notation: "No Sir, only a second and only a semitone, some times when impassioned." (See Photostat No. 6)

In at least this one contention that it is the smaller intervals that create emotional effects, Rush is supported by the authority of Charles Avison, whose book on musical expression was in its third edition by the time of Steele's publication. Avison says in two different places:

Indeed, in some cases, expression will coincide with imitation, and may then be admitted universally: as in such chromatic strains as are mimetic of the grief and anguish of the human voice.

25. According to James E. Murdoch, A Plea for Spoken Language (Cincinnati: Van Antwerp, Bragg & Co., 1883), 39 ff, Mr. James Wright, who was a follower of Walker, recorded inflections as normally involving the interval of a fifth. Murdoch says on page 42: "He [Wright] also observed that the distance traversed by the inflection is governed by the excited feelings, claiming the musical fifth for the measure of the inflection of ordinary unexcited speech; still, he offers no close analysis of this mental and vocal relationship." While Murdoch seems to think that Wright might have been making an analysis of the specific inflection, the likeness which Wright's system of notation bears to that of Steele's would indicate that the interval of a fifth was more an arbitrary form upon which to create an inflectional symbolization than an interval possessing any particular importance in itself.


27. Rush's marginal notation in his personal copy of Steele, 37.

theatrical declamation might not be agreeably and advantageously lifted, as well as that of the ancient Greeks and Romans, by a suitable bass accompaniment. I considered, that as the prodigious changes of the voice by slides, either acute and grave, were very rapid, the bass accompaniment ought, by the rules of harmony, to be very little, or no motion by the acute or grave: for, in the diatonic genus, whenever the cantus takes a rapid flight, either up or down, through all the notes of the octave, the most proper and agreeable bass is one continued sound, either of the fundamental key, or of the 4th to the key-note, or of the 5th to the key, or of two of them bound together, in discord or harmony, as the composer and the taste of the composer may require. Neither would it be proper for the accompaniment of the voice, to exhibit the sound of the bass otherwise than by single notes, or one holding a note; because to continue it legato or by several repeated strokes, might interfere with, and confound, the articulation of the speaker. Experience must teach us when this note may be intermitted, and when changed for another. I therefore concluded, that there could be no occasion, in the accompaniment of speech, for the bass to sound any other tone than the fundamental of the key, its fourth, or its fifth; or the key-note with its fifth, or perhaps with its fourth, also in concord: because, while any of these are continued sounding, the voice, by acting through the whole extent of the octave, must, in its progress, exhibit every concord of harmony that is possible between two sounds. And therefore I made trial of the fundamental (or deepest note) that seemed to be the common level of my voice in speaking, which I suppose to be a consonant pitch, and made use of the open tone of the fourth string of a violincello, which was below my common level. I found my aides in common discourse went about a fifth (of the diatonic scale) above the level of the key-note, and about a seventh below it; but if excited, it ran two whole tones higher, which made in the whole extent a compass of 13 notes, or of five octaves.

Voice

The deeper the fundamental bass is taken, the more agreeable it will sound; that is, it will be better to be two octaves below the cantus than one: for, the farther two discordant notes are removed from each other, the less harsh their discord will sound to the ear; as the ninth sounds less uncouth than the second, and the sixteenth (still less so than the ninth; but especially the more grave the accompanying sound is, the less it will tend to out-voice the speaker.

Whether a (hinged instrument with a bow, or wind instruments, such as very deep flutes or French horns, will have the best effect, must be proved by future experiments.
The diesis, or quarter tone, or less, if performed by the voice or violin, being in interval in the enharmonic scale of the Ancients, and amazingly powerful in rousing the passions. 29

It seems evident, therefore, that neither the ancients, Monboddo, nor Steele, have attempted to describe specific interval in the pitch changes of speech, even though they all recognized the close kinship of speech and music.

The opinion of still another writer who wrote in the same year with Steele should be noted on this subject. This is William Cockin, who wrote anonymously. While trying to give a description of the speech progress, he too indicated his opinion that speaking inflections could not be measured. He said:

Speech then may be defined "a succession of very short sounds emitted with ease through the glottis at the pronunciation of every distinct syllable, frequently shifting at once, or gliding in a wave-like manner through small immeasurable intervals, and now and then leaping from one musical note to another considerably distant; but in all cases articulated by the effluent breath as it is differently affected by the organs of the mouth." As to singing, I conceive its description to be pretty obvious: it is a succession of sounds from the glottis, which whatever be the quantity of their leaps or intervals, always agrees with some note of an established measurable scale; resting perceptibly upon every note; requiring a much more forcible respiration of the breath than common; capable of several musical graces (as the shake, swell, etc.) and, when it is the vehicle of words, frequently heard after the articulation is at an end. 50

It is interesting to note that Porter, who made no reference to the distinguishing of speech intervals in his 1827 Analysis, should make the following comment in 1839 after two editions of Rush's Philosophy had been published:


But experience taught me long ago, that no theories in
elocution which presupposes learners in this art to possess
skill in musical sounds, can be generally useful. Multitudes
must be taught reading and speaking, who cannot accurately
distinguish musical intervals of notes. Those who can do it,
will find great facility in cultivating quantity and compass
of the voice. To such I recommend a course in experiment on
different vowel sounds, such as occur in the examples of
emphatic words under the last head.31

Rush seemed to have been waging a battle single handed. No one
before and only a few since his time have been in agreement with his
concept of the importance of the specific interval. Probably through
his efforts rhetoricians learned to recognize that the smallest
intervals of inflection in speech could be observed, but they have not
accepted so readily his analysis of the meanings of the various intervals
from the enharmonic to the octave.

In Rush's copy of Walker's 1810 edition of the Grammar of
Elocution are numerous examples of the strong belief Rush held for the
significance of specific intervals. There is also great evidence of
Rush's lack of respect for Walker's judgment in the matter of pitch
because of the latter's refusal to recognize the interval.

To begin with, Walker says:

The continual motion of speaking sounds makes it almost
as impossible for the ear to mark their several differences, as
it would be for the eye to define an object that is swiftly
passing before it, and continually vanishing away: . . . 32

The above quotation is from the 1781 edition, since Rush had no comment
on this reference in the 1810 copy. However, when Walker proceeds to
point out that the kind of slide one uses is the most important part

31. Porter, Reader, 58.

of an inflection, Rush objects. Walker projects the following:

The three other points, namely, semicolon, colon, and period, adopt either the rising or falling inflection as the sense or harmony requires, though in different degrees of elevation and depression. But these different degrees of rising or falling on the slide which ends the word, are by no means so essential as the kind of slide we adopt.53

Rush marginally noted this comment with: "A mistake, the interval is of the greatest consequence."54 A few pages later Rush makes continual heavy notations to the effect that Walker had a complete misconception of what interval should be used. When Walker is giving his rules for inflecting the direct period of compact sentences, Rush repeats his complaint that no matter how much Walker talks about inflection he never makes it clear just what interval is meant. And again during Walker's discussion of the grammatical use of the parenthesis, Rush says: "See here how much he wanted a knowledge of the doctrine of intervals."55

Thus it can be seen that one of Rush's main criticisms of Walker was that the latter attempted to describe inflections and their uses without bothering to become completely familiar with the significance of the specific intervals.

Smart, writing immediately prior to Rush, seems to believe that it is possible to recognize the specific intervals, but he doubts the value of doing it. The following quotation, which includes a footnote, shows that he did not describe the specific intervals.

An inflection may for instance be, by comparison, rapid or drawling, or run in different degrees to the high or

34. Rush's marginal notation in his personal copy of Walker (1810), 76.
35. Idem, 171.
low pitch. The slides also vary considerably in respect to the equability of their motion, some being pretty regular throughout, but others beginning slowly and becoming more rapid as they advance. Difficult as it may be to conceive the existence of these varieties in the small compass of single syllables, they certainly do exist in much greater number than is here noticed; and they are regulated, as the inflections themselves, by the meaning of the speaker.* But as marking the inflections with this exactness, were it possible, cannot certainly be attempted here, and would not be comprehended though it could, it seems better to throw aside the plan of marking them altogether.

*It is not easy to say to what degree of exactness the slides of voice might be ascertained. Perhaps, by using a pitchpipe, their exact lengths, and any other properties might be discovered. That different persons vary the voice, in discourse, to different degrees of height and depth, is evident from the comparative monotony of some speakers. But we may presume the slides always preserve the same relation to each other, and we might possibly ascertain some principle which regulates this relation. But after all, the ultimate utility of this kind of experiment is questionable.

This chapter, then, has attempted to show how Rush has presented an original contribution in the concept of the specific interval in the inflections of the voice. He believed that the speaking as well as the singing voice could be observed in these intervals, and that the various states of the mind took specific expression in the degree of pitch change. Those who did not recognize these intervals he charged with careless observation. In Rush's own analysis of voice the specific interval is an important consideration, for he maintains that a person has a greater capacity for expressing nature if he has first improved his power of observing and producing the various intervals.

Thus concludes the list of Rush's original major contributions to the study of speech. There may be additional points of originality

disclosed in Part Four. Oftentimes Rush's discussion of some element employs, in general, material which was already in existence, but his alteration of it makes an adaptation for which he should receive credit. While the main purpose of the next part, then, will be to show how the rest of Rush's concepts had been treated by writers previous to him, it will also acknowledge any phases of originality which he develops.
PART IV

OF THE REMAINING RUSH CONCEPTS

Chapter 10. Of Ascent, Quantity and Rhythm
Chapter 11. Of Cadence and Pause
Chapter 12. Of Pitch and Inflection
Chapter 13. Of Quality and Vocal Signs of the Passions
Chapter 14. Of Force
Chapter 15. Of Emphasis
PART IV

OF THE REMAINING RUSH CONCEPTS

Chapter 10

Of Accent, Quantity and Rhythm

In addition to the major points of originality discussed in the Chapters of Part Three, there are other less significant ideas which were initiated by Rush. These will be mentioned from time to time. The concepts herein discussed as Part Four were not conceived by Rush, for they were treated by many writers before 1827. The main purpose of the remaining chapters is to show how Rush made adaptations of and new approaches to existing material in the arrangement of his own analysis. Concepts which actually appeared in earlier works are often thought to be of Rush origin because he treated them more elaborately and because he collected many existing analyses into one complete Philosophy.

The present chapter is to deal with accent, quantity, and rhythm. It may be wondered why these topics have been grouped together in one chapter, and why accent is not discussed along with emphasis as is the usual procedure. This arrangement is used because the chapter will deal with the variable factors which exist within a word. Practically all writers, including Rush, consider accent and quantity as a factor of syllables, and rhythm as dependent to a large extent upon the use of accent and quantity.

Rush says: "Accent may be defined in general terms to be the inexpressive distinction made between the syllables of a word."¹

¹. Philosophy (First Edition, 1827), 364.
But emphasis, on the other hand, is a distinction of expression. Usually that distinction rests upon words, but the syllables, too, sometimes carry emphatic meaning. He says:

> When the conspicuousness of a syllable whether made by force or by other means, carries with it a remarkable meaning or feeling, it constitutes the function called emphasis.\(^2\)

The idea that the difference between emphasis and accent is the presence or absence of meaningful distinction was not entirely new with Rush, and the concept of accent as referring to syllables and emphasis to words was not uncommon among many writers. Kames thought of accent as applying to syllables, but in a footnote to his discussion of it he says: "An accent considered with respect to sense is termed emphasis."\(^3\)

Such a statement is obviously a forerunner to Rush's interpretation of accent as "inexpressive" and emphasis as "expressive."

Dwyer also gives a definition that relates emphasis to meaning. He says:

> Emphasis produces a primary beauty of oratory; it gives the nice distinctions of meaning, the refined conceptions which language is capable of expressing, and imparts a force and harmony to composition which its absence would render lifeless, and frequently unintelligible.\(^4\)

Porter refers to accent as being devoid of meaning, but he does not mention that syllables can become emphatic:

> Accent is a stress laid on particular syllables, to promote harmony and distinctness of articulation. The syllable on which accent shall be placed, is determined by custom; and that without any regard to the meaning of the words, except in

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2. Idem, 364.
a few cases. First where the same word in form, has a different sense, according to the seat of the accent. . . . Or it may distinguish the noun from the verb.5

Cockin makes the distinction between syllabic accent and word emphasis.

In attending to the affections of the voice when we speak, it is easy to observe, that, independent of any consideration, one part of it differs from another, in stress, energy, or force of utterance . . . This stress with regard to syllables is called accent, and contributes greatly to the variety and harmony of language. Respecting words it is termed emphasis, and its chief office is to assist the sense, force or perspicuity of the sentence.6

Sheridan makes a similar analysis.

Sound is the essence of letters, articulation of syllables, accent of words, and collections of words united by emphasis and divided by proper pauses, of sentences.7

Sheridan even said that this is what Shakespeare meant when he said "Speak the speech I pray you . . . trippingly on the tongue . . . ."

By "trippingly on the tongue" he means the bounding from accent to accent; tripping along from word to word, without reflecting syllables by the way. And by mouthing is meant, dwelling on syllables that have no accent, and ought therefore to be uttered as quickly as is consistent with distinct articulation; or prolonging the sounds of the accented syllables beyond their due proportion of time.8

Turning now to a discussion of how accent can be achieved, we must remember that there had been great confusion as to what accent really was.9 Some had thought of it as referring only to inflection, and others had considered it as force or percussion. In Chapter Five

5. Porter, Rhetorical Delivery, 66.
8. Idem, 68.
it was pointed out that Rush attempted to clarify the terminology so there would be no further question regarding the modern interpretation of the term. This chapter intends to develop still further Rush's analysis of the constituents of accent, and to compare his ideas with other writers.

To begin with, Rush says:

Accent is defined in philology, to be the distinguishing of one syllable of a word from others, by the application of a greater force of voice upon it. This is true, but a limited account of accent; for it will be found on analysis that the accessional characteristic consists in a syllable being brought under the special notice of the ear. This may be done by force; but it will be shown presently that it may be likewise effective through other audible means.  

Here is the answer to many of the arguments concerning the constituents of accent. Rush is saying that those who believe accent is brought about by force (or percussion) are right, but that that is not the only means of doing it. There are three ways, he says, of producing accent. Rush presents these as being independent of pitch, but he adds that they are actually dependent upon pitch because of the inflectional movement of the radical and vanishing. Consequently, no matter how the accent is achieved, it is at the same time augmented by certain pitch changes.

The three ways of producing accent according to Rush are:

1. **Radical stress**, or the extra force placed upon the radical movement. Since the vanishing movement is not to be disturbed, this accent can be effected on immutable syllables.

2. **Loud concrete**, or the extra force placed upon the complete radical and vanishing movement. This cannot be used
except upon such sounds as have sufficient length to give
cognizance to both the radical and vanish.

3. Longer quantity, or the prolongation of a tonic. He also describes the different degrees of susceptibility among
the phonetic elements for receiving these three forms of accent.

**Tonics** can absorb all three kinds.

** Abrupt elements** can assist the tonics, but it is
impossible for them to take on the loud concrete.

**Subtonics** have little or no power in the radical stress,
but they are particularly adapted to using quantity for accent.

**Atonics** are not good for any form of accent and therefore
do not aid much in creating it.

Rush believes that accent can be created by the use of one or all
of these methods in the following statement:

... emphasis, which employs all the elements of
expression, cannot exist without accent; for these significant
elements, have through pitch and time and stress, an alluringness
to the ear, which constitutes the defined character of accent.

Here Rush indicates how closely allied he considers the elements of
accent and the elements of expression, and how they all work together to
produce the desired effect.

Perhaps Walker is trying to say somewhat the same thing, but he
seems so confused that his explanation never becomes clear. He thinks
that since accent has to do only with words there is no point to a
consideration of it in an analysis of delivery.


As accent relates to the pronunciation of words taken singly, it can have little to do in an essay on the pronunciation of words in succession, as elocution, perhaps, may not improperly be called; for as words justly pronounced are merely the materials for delivery, these must all be supposed to be in our own possession before we can possibly begin to arrange and display them to advantage.  

But then he adds later:

The only point, therefore, in which it will be necessary to take notice of accent in reading, is that where the emphasis requires a transposition of it; this happens when two words which have a sameness in part of their formation, are opposed to each other in sense.  

After indicating that there is little value in a discussion of accent, he proceeds to explain how it is achieved and what importance it has.

Now the important thing that Walker says, however, is that inflection and changes in loudness seem to occur together in the creation of accent. To the following quotation Rush in his copy of the 1810 edition noted: "What happens to Mr. W's theory of accent." Walker says:

Some authors confidently assert, that the accented syllable is pronounced in a higher tone than the rest, and others insist that it is not pronounced higher but louder only. Whatever may have been the nature of accent in the learned languages; certain it is, that the accented syllable in our own, is always louder than the rest, and if we attend ever too little to the two kinds of inflection with which every accented word in a sentence is pronounced we shall soon see that the accented syllable is either higher or lower than the rest according to the inflexion which it adopts.

16. Walker, Elements (1781), II, 5; also (1810), 183.
Whatever inflexion is adopted, the accented syllable is always louder than the rest; but if the accent is pronounced with the rising inflexion, the accented syllable is higher than the preceding, and lower than the succeeding; and if the accent has the falling inflexion, the accented syllable is pronounced higher than any other syllable, either preceding or succeeding. 17

Rush did not think Walker had any basis for knowing whether tones rose or fell, as is evidenced by still another marginal comment, but whether Walker had or not, he apparently did recognize that change in force and change in pitch might occur together in creating an accent.

Rush also felt that one could not base an entire theory of accent upon the rise and fall of the voice, because accent can have no fixed relation to inflection. While accent is not essentially concerned with meaning, the radical and vanishing movement keeps the voice in an almost constant movement that is basically involved in expression.

However, Rush seems quite certain that because of this correlated use of meaningful inflexion, accent practically always employs more than one variation of sound in its formation.

Porter, too, seems to imply that inflexion and force work together to produce accent. He says:

The accented syllable of a word is always uttered with a louder note than the rest. When this syllable has the rising inflexion, the slide continues upward till the word is finished; so that when several syllables of a word follow the accent they rise to a higher note than that which is accented; and when the accented syllable is the last in a word, it is also the highest. But when the accented syllable has the falling slide, it is always struck with a higher note than any other syllable in that word. 18

That accent is at least the result of a syllable's being uttered louder than another is recognized by many writers. Monboddo

17. *Ideas* (1781), II, 9.
was one of the earliest to present such a view of accent. He says:

But what do we mean then when we speak so much of accent in English, and to dispute whether a word is right or wrong accented? My answer is, That we have no doubt, accents in English, and syllabical accents too; but they are of a quite different kind from the ancient's accents; for they use no change of the tone in them; but the voice is only raised more, so as to be louder upon one syllable than another. Our accents therefore fall under the first member of the division of sound, which I made in the beginning of this chapter, namely, the distinction of louder, and softer, or lower. 19

Even before Monboddo, a musical theorist named William Holder, recognized this form of percussion, or loudness, but he did not make it clear whether he considered it to have speech implications in a form of accent.

There are some Musical Sounds which seem to be made, not by Vibrations but by Pulses as by Whisking swiftly over some Silk or Camblet-stuffs, or over the Teeth of a Comb, which render a kind of Tune more Acute or Grave, according to the swiftness of the Motion. Here the sound is made, not by Vibrations of the same Body, but by Percussion of several equal, and equidistant Bodies; as Threads of the Stuff, Teeth of the Comb passing over them with the same Velocity as Vibrations are made. It gives the same Modification to the Tune, and to the Undulations of the Air, as is done by Vibrations of the same Measure; the Multiplicity of Pulses or Percussions, answering the Multiplicity of Vibrations. I take this Notice of it, because others have done so; but I think it to be of no use in Musick. 20

Steele makes reference to this type of accent, too. But his use of the term accent to imply Greek accent makes it necessary for him to use the term poize to show the accent of force.

The instinctive sense of pulsation gives the mind an idea of emphasis and emphatic divisions, independent of any actual increment of sound, or even of any sound at all. But emphasis and emphatic divisions imply, that there are some sounds of a different nature; that is, that there is a

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discontinuance or diminution of emphasis with or without discontinuance or diminution of sound; or, in other words, independent of sound. And hence we have the mental sensation of emphatic and unemphatic, which I distinguish and represent by the words and symbols heavy \( \triangle \) and light \( \cdot \cdot \cdot \). And as a common term to signify both, I have appropriated the word poise, in like manner as accent is used as the common term for acute and grave, and quantity for long and short.\(^{21}\)

Steele, in discussing poise, has essentially the same concept that Rush has of accent. As a matter of fact, the part of Steele's treatise to which Rush objects least is that on poise and quantity. Steele has long exercises of poetry which he scans with his symbols for heavy, light, long and short. Chapman follows Steele in this, and so does Barber. Rush bases his chapter "Of the Rhythmus of Speech" on Steele.

It is thus far evident, then, that Rush believes accent to be the result of changes in force, coupled with the apparent pitch change in the radical and vanishing movement, and that these may even be coupled with other ways of producing accent. He furthermore believes that accent is usually only a matter of custom, but when occasion arises, emphatic stress may fall upon the syllable so that accent in that case could be the result of expression. It has also been shown that other writers have held these same beliefs.

So far in this discussion of accent, the emphasis has been placed on the general agreement among writers on speech. It would also be of interest to see what opposing opinions existed. In the first place, Monboddo could not hear any musical constituent in accent at all.

That there is truly no other difference, is a matter of fact, that must be determined by musicians. Now I appeal to them, whether they can perceive any difference betwixt the

\(^{21}\) Steele, Essay, 117.
accented and unaccented syllables of any word; and if there be none, then is the music of our language in this respect nothing better than the music of a drum, in which we perceive no difference except that of louder or softer, according as the instrument is more or less forcibly struck.\textsuperscript{22}

(This failure to hear any inflection in the spoken syllables was one of the major causes of Steele's Essay in refutation of Monboddo).

Sheridan, too, was unable to hear accent as a result of any pitch variation. He says:

Now in pronouncing English words, it is true that one syllable is always distinguished from the rest, but it is not by any perceptible elevation or depression of the voice, any high or low note that it is done, but merely by dwelling longer upon it, or giving it a more forcible stroke.\textsuperscript{23}

He seems to contradict himself somewhat, however, on the idea that accent is achieved by lengthening the syllables, for elsewhere he complains about that very thing.

All persons who pronounce English words properly, of course lay the accent right, as this is part of pronunciation; and never fail to do so in conversation. But many, when they come to read or speak in public, transgress the rules of accent. This arises from a mistaken notion in some, that words are rendered more distinct to a large assembly, by dwelling longer upon the syllables which compose them; and in others, that it adds to the pomp and solemnity of public declamation, in which they think everything ought to be different from private discourse.\textsuperscript{24}

However, Sheridan complained of this over-prolongation of syllables as a fault of the stage primarily, or as the result of affectation, so perhaps this does not necessarily represent an inconsistency. He proceeds to develop his point of view on accent to show that there

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\textsuperscript{22} Monboddo, Essays, 229.

\textsuperscript{23} Sheridan, Art of Reading, 74.

\textsuperscript{24} Sheridan, Lectures on Elocution, 67.
was a difference resulting from whether an accent was placed on a
vowel or on a consonant.

The only difference of our accent depends upon its
seat, which may be either upon a vowel, or a consonant. Upon
a vowel, as in the words glory, father, hasty. Upon a consonant,
as in the words habit, borrow, battle. When the accent is on
the vowel, the syllable is long, because the accent is made by
dwelling on the vowel a longer time than usual. When it is on
the consonant, the syllable is short; because the accent is
made by passing rapidly over the vowel, and giving a smart
stroke of the voice to the following consonant.  

Rush heartily objected to Sheridan's belief that the placing of
the accent on a vowel made the syllable long, and on a consonant
made it short. Rush says in the text of his own book that Sheridan
forgets that the very length of the tonic would call attention to
itself as an accented syllable without the addition of force. Conse-
sequently, in the cases Sheridan mentions, it is not force at all which
causes the length of syllables to vary, but, says Rush, it is the
nature of the combination of phonetic elements. Rush explains later
that a pause between consonants will help emphasize the word since
immutables cannot receive a prolonged quantity.

While the length of syllables has been referred to in this
discussion as one of the means of gaining accent, it is also to be
considered as a mode of sound distinct from accent. In differentiating
accent from quantity, Rush says that the ear is capable of recognizing
differences between syllables because of two particular ways of uttering
them. The first is by accent, which has already been described, and the

25. Sheridan, Art of Reading, 85; also, Rhetorical Grammar, 86.
27. Idem, 187.
second is by quantity. While accent differentiates syllables by a momentary impression of unequal force, quantity does so by distinguishing a sequence of sounds in unequal duration. The latter of these two ways of distinguishing syllables, Rush believes, is more desirable because there is no break in the sound to destroy its musical character. In another place he tells how in the reading of poetry, greater sincerity and naturalness usually result from the predominant use of quantity in preference to accent. Accent is likely to produce the "sing-song" effect of poetry, while rhythm of quantity is less likely to create that type of unpleasantness; but both accent and quantity are important aspects of good reading technique. Rush says:

A principal source of the difference between a good and a bad reader lies in the varied degrees of their ability to command the accent and quantity of syllables. 28

It is perhaps worth noting here that present-day radio technique has borne out Rush's contention that quantity provides a more satisfactory way of creating rhythm and differentiating syllables than an accent of force. Radio, in its electro-mechanical transmission of sound, does not permit an excessive accent through momentary application of force, because an unpleasant effect of roughness is thereby created. A radio speaker is directed to get his effectiveness from irregular vowel lengths rather than by force—in other words, through quantity rather than accent. Rush complained then, as teachers do today, that speakers do not make use of the opportunities of good expression through the use of quantity.

Keeping Rush's interpretation of accent in mind, we should

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observe now the extent to which the problem of quantity had been
developed before he wrote. With a few exceptions, notably Porter,
quantity is almost exclusively thought of in the same interpretation
that Rush presented. While Porter used the term quantity to refer
mostly to general loudness, and somewhat to quality, he also gives it
the meaning of syllabic duration. He says:

But besides strong and feeble tones, as belonging to
quantity, it includes also a proper regard to time... So in elocution if every word and syllable were uttered with
the same length, the uniformity would be as intolerable as
the worst monotony.29

Kames, in the middle of the eighteenth century, said:

With regard to quantity, it is unnecessary to mention
a second time, that the quantities employed in verse are but
two, the one double of the other; that every syllable is
reducible to one or other of these standards; and that a
syllable of the larger quantity is termed long, and of the
lesser quantity short.30

Steele described quantity as the duration of the individual
syllables, either on the thesis or arsis. He uses the following
symbols: ⊤ for long, ⊥ for short, and | for shortest. Rush makes
no effort at such symbolization of quantity, but his concept of it
appears to be identical with Steele.

Chapman, who apparently got most of his information from Steele,
also comments similarly to Rush:

The term Quantity, is appropriate to discriminate the
relative value of sounds in duration of time, being either the
quantity of whole cadences, that is, it refers to the dis-
tinction of longer or shorter notes or syllables, or of longer

29. Porter, Rhetorical Delivery, 110.
30. Kames, Elements, II, 89.
and shorter pauses. It is, therefore subservient to the
cadences of rhythmus, as fractional or aliquot parts are to
tegers; and it is the business of Metre, to adjust the
quantities of notes or syllables contained in each cadence or
bar: Rhythmus is to keep, by its pulsations, all the cadences
of an equal length. 31

Foster closely allied quantity with inflection (accent), but he
also used the term quantity to mean duration of sound. The portion of
the following quotation introduced by an asterisk indicates a footnote
reference to an interpretation of inflection and quantity by Samuel
Johnson.

This brings me again to the consideration of English
quantity: in regard to which, it will be said, that those syllables, which I call long, receive a peculiar stress of voice
from their acute accent, as really, orthely. I allow it; and
by that means they are elevated: but they are lengthened too.
The case is, we English cannot readily elevate a syllable
without lengthening it, by which our acute accent and long
quantity generally coincide, and fall together on the *
same syllable.

*This is confirmed by the decisive authority of Mr.
Saml. Johnson, whose very great abilities and extensive
erudition have done an honour to his age and country.
He, in the rules of his prosody prefixed to his
dictionary, considers the acute tone and long quantity,
in English verse, as equivalent by acting together. 32

Thus, quantity, as early as 1761 (first edition of Foster) was
interpreted as it was in the Philosophy. It is now to be seen how
the two factors previously discussed, viz., quantity and accent, aid in
the establishment of rhythm.

Rush in his chapter on Rhythmus points out that these two
factors, plus that of pause, are the chief causes of rhythm.

32. Foster, op. cit., 25.
The rhythmus of language is that perception which the ear has of accent, quantity and pause. Or in other words, a certain succession of syllables, having different degrees of stress or quantity, and this succession being divided into portions by pauses, constitutes one important cause of the agreeable impression of the current of speech.33

Other writers perceive the same causative factors of rhythm.

Monboddo wrote:

The question then is, What changes continued sound admits of, and what are the rhythms thence arising? And there is one obvious change which very strongly strikes the sense, namely, that from louder to softer, or vice versa. This proceeds from a stronger or weaker percussion of the sonorous body, which produces greater vibrations of the body, and consequently of the air.34

He is showing here that rhythm is the result of accent, but concludes that it is also due to quantity.

For if the mind perceives any ratio betwixt sounds with respect to their length or shortness, then it has the idea of this kind of rhythm, which in music is commonly called time; but in language the ancient authors call it by the name of the genus, rhythm; whereas, in modern authors, it is commonly distinguished by the name of quantity.35

Monboddo also pointed out the extreme importance of pauses as a factor in rhythm. In the Steele-Monboddo correspondence which was published in Steele's Essay, Monboddo complained of Steele's negligence in not giving pause a more conspicuous discussion:

It is the third thing I mentioned, namely, the pauses, that, in my opinion, make the chief, if not the only, rhythm of our English prose. If these be not attended to properly, and the style properly divided into periods, and members of periods, of different lengths, varied likewise by pauses, shorter or longer, the composition will be altogether without numbers, and will never be approved by a good ear; and, as

33. Philosophy (First Edition, 1827), 495.
35. Idem, 312.
speaking is the best trial of composition, this defect will chiefly appear when the performance is read or spoken. But though I insist so much upon the variety of the pauses, as well as the whole structure of the composition, I do not deny, that there should be likewise sometimes an uniformity; and that sometimes periods, and members of periods, of the same length, sometimes with words answering each to the other, will now and then be agreeable.36

And he repeats later:

I must own myself fully convinced, that the pauses make an essential part of the rhythm of speech; and that if a man in speaking, stops where he should not, or stops too long or too short, he will not only offend the understanding, but the ear; and our notation of these stops in writing is imperfect inasmuch as they only mark that one pause is greater than another; but do not let us know by how much, or in what proportion, the one is longer than the other.37

It is Walker who goes thoroughly into the subject of rhythm and harmonious arrangement of words and syllables. It was mentioned earlier in this chapter38 that he believed accent to be the result of changes in force as well as of inflection, and now it can be seen that his concept of the harmony of prose and poetry is based on the same idea. Walker says:

The return of the accented syllable at certain intervals seems the common definition of both [prose and verse]. In verse we find these intervals nearly equal; and it is this equality which forms the measure.39

Though we cannot so easily trace that accentual rhythmus, which forms the harmony of the beginning and middle of a sentence yet the latter part, or what is commonly called the cadence, consists (when harmoniously constructed) of such an arrangement

36. Steele, Essay, 107. This same idea is found in Monboddo's Essays on the Origin of Progress of Language, 305.
37. Idem, 177.
38. See p. 161.
of accented words, as approaches nearly to verse.40

As the harmony of verse is owing solely to an equal and regular return of accent, the harmony of prose must arise from the same source: That is, as verse owes its harmony entirely to a regular return of accent, prose can never be harmonious by a total want of it. The sole difference between them seems to lie in the constant, regular, and artificial arrangement of accent in the one, and the unstudied, various, and even opposite arrangement in the other.41

Hitherto I have considered poetic and proseic harmony as arising from an harmonious and rhythmical arrangement of accent; and it is with some diffidence I venture upon a farther explication of this subject upon principles which have never yet been thought of; but I presume it will be found, upon enquiry, that the various and harmonious arrangement of the rising and falling inflexions of the voice is no less the cause of harmony, both in verse and prose, than the metrical arrangement of accent and emphasis.42

It is clear that Walker thinks rhythm is the result of accent and inflection. He even develops a system of marking rhythm which shows the regulation of rising and falling inflexions in a pattern. He assigns A to represent a rising inflection and B to a falling one, and a rhythm in two lines of verse might thus be shown by A B B A, B A A B. Walker makes little or no reference to quantity as an aspect of rhythm, but relies entirely upon inflections and accent.

It may be wondered at this juncture how the subjects of accent, quantity and rhythm fit into Rush's system of five elements. Since the elements are applicable to several aspects of expression, it is impossible to organize a discussion that will examine each element separately while treating individually of such concepts as accent. Consequently when a conflict occurs, the comparisons in this study are

40. Idem, 144.
41. Idem, 147.
42. Idem, 151.
planned to deal with the popular arrangement of speech factors, rather than with the individual elements. From the discussion of the present chapter it can readily be seen that accent and rhythm employ the elements of time, force and pitch, while quantity, on the other hand, is a part only of time. Monboddo already had referred to quantity as synonymous with time.43

In summary:

Rush presented the following concept of accent:

1. It pertains only to syllables and is not an expressive mode of utterance except in rare cases.

2. It is achieved independently of pitch, although it cannot be separated from pitch on account of its dependence upon the radical and vanishing movement.

3. It is formed in three ways:
   a. By radical stress.
   b. Loud concrete.
   c. Longer quantity.

4. It is employed by the alphabetic elements in various ways depending on the character of the elements.

References to writers earlier than Rush have shown how all these ideas existed before Rush, with the exception of the radical stress as a factor in accent.

Quantity, Rush says, is not only a form of accent, but has other uses.

43. Monboddo, Essays, 309.
1. It is a second mode of distinguishing syllables (the first being accent) and a more desirable one.

2. It is the means of prolongation of tones to variable lengths. It was found that this concept of quantity also existed before Rush.

Rhythm is primarily the result of accent and quantity, according to Rush and most others who wrote before him. Walker was the exception, for he thought it primarily an effect of inflection and accent.

In conclusion, it has been shown that with minor exceptions there is no originality in Rush's concept of accent, quantity and rhythm.
Chapter 11

Of Cadence and Pause

Just as quantity, accent, and rhythm were interrelated, so are cadence and pause. A certain effect is created by pause when preceded by particular cadence. And, conversely, a certain type of cadence usually elicits a particular type or length of pause. These two factors are to be considered in this chapter.

It might be stated at the outset that cadence belongs to the basic vocal element pitch, and pause to the element time, as described by Rush. Rush was utterly dependent upon his concept of radical and vanishing movement, and upon his determination to be specific in his description of musical and harmonic phenomena as they exist in speech. Because of this dependence, the particular organization and divisions of his ideas on cadence and pause are likely to be new and hard to comprehend. Perhaps this is the reason he has been accredited with so much originality. In reading Rush, however, once the specific and particular language has been mastered, there is less difficulty in seeing how many of the ideas he treats had also been presented by previous writers.

Rush's list of types of cadence, and of intonation of pause, appears superficially to be highly original. But upon close examination, it will be seen that much the same thing had been suggested by writers before him. Their conception of ideas might be considered the source of his adaptations and developments. It will be found in the following discussion that there is nothing basically new in Rush's treatment of cadence and pause. His more elaborate explanations and classifications of forms and types add specificity and newness to existing beliefs.
To examine the concepts of cadence, it will be well to begin with Rush's definition. He describes it as the intonation of the final syllables of a sentence. He modifies this somewhat, however, to use cadence in referring also to "half stops" at the end of phrases. Some confusion had already existed over the use of the term cadence, due to its possessing two meanings, even as it does today. Cadence can refer either to the rhythmical beat of a progressive movement, or to the particular arrangement of the final sounds of a series.

Steele took the former interpretation of the term, while Rush used the latter. Steele thought of cadence as synonymous with bar, or as the alternating pulsation and remission of a rhythm. Both of these interpretations are musically acceptable.

However, Steele seems to have understood how the voice falls in specific patterns upon the ends of phrases and sentences, even though he did not call them cadences. In many of his symbolized descriptions of how to read a sentence, the last three inflections will follow the pattern Rush sets up for a closing cadence. At one point Rush even gives Steele credit for transcribing the cadence correctly. Rush penciled in the margin of his copy, "See here some slight approach to the true history of the cadence."¹

As early as 1708 a French treatise on The Art of Speaking made the following mention of cadence.

Sometimes we conclude the end of each member of a Period with terminations almost alike, which produces an equality in the Cadences of Members, and makes the Period more harmonious; as may be observ'd in several examples, where all the Periods are not equally studied.

¹ Rush's marginal notation in his personal copy of Steele, 134.
The care that we take to place properly the repose of the Voice in the Periods, makes us pronounce them without pain; and it has been observ'd, that things of easiest pronunciation are most grateful to the Ear. 3

Although there is some question as to whether this writer is referring to cadence as a rhythmical beat of the "members" or whether it refers to the "terminations," there is no doubt that he is at least commenting upon the phenomenon of phrasing.

Rush was not the first to apply the term cadence to the last three falling notes of a sentence, however. Avison compared the stops in speech to the cadence in music in an attempt to explain the latter to musical students.

Cadences in Music, are the same as stops in speaking or writing; being, in like manner, the proper terminations, either of a part, or of the whole of the composition. 4

Cookin also mentions the cadence, but he does not describe it in detail more than to say it is important to make a pause complete in its effect. 5 However, he does say:

The tones, that fall a little lower than the key at the close of a sentence or period, are called Cadences. These Cadences, if we are accurate in our distinctions, will, with respect to their offices, be found of two kinds, though they meet so frequently together, that it may be best to conceive them only as answering a double purpose. One of these offices is to assist the sense, and the other to decorate the modulation. 5


5. Idem, 75.
Kames and Mason each make interesting comments on the subject of cadence. They are both of the opinion that it should be thought of as the opposite of emphasis or accent. Note the following from Kames:

In reading, as in singing, there is a key-note; above this note the voice is frequently elevated, to make the sound correspond to the elevation of the subject; but the mind in an elevated state, is disposed to action; therefore, in order to rest, it must be brought down to the key-note. Thence the term cadence.\(^6\)

Sometimes to humour sense, and sometimes the melody, a particular syllable is sounded in a higher tone, and this is termed accenting a syllable, or gracing it with an accent. Opposed to the accent, is the cadence, which I have not mentioned as one of the requisites of verse, because it is entirely regulated by the sense, and hath no particular relation to verse. The cadence is a falling of the voice below the key-note at the close of every period; and so little is it essential to verse, that in correct reading the final syllable of every line is accented, that syllable only excepted which closes the period where the sense requires a cadence.\(^7\)

Mason presents almost the same point of view:

The next thing to be observed is Cadence. This is directly opposite to Emphasis. Emphasis is raising the Voice. Cadence is falling it, and when rightly managed is very musical.

But besides a Cadence of Voice, there is such a thing as Cadence of Stile. And that is when the Sense being almost expressed and perfectly discerned by the Reader, the remaining words (which are only necessary to complete the Periods) gently fall of themselves without any emphatical Word among them. And if your Author's language be pure and elegant, his cadence of Stile will naturally direct your Cadence of Voice.

Cadence generally takes Place at the End of a Sentence; unless it closes with an Emphatical Word.\(^8\)

Rush apparently did not observe the cadence as opposed to emphasis, for he makes no mention of it. However, he does accept the

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7. *Idea*, 78.
viewpoint that cadence is the falling of the voice at the end of phrases, clauses and sentences. He also goes beyond this idea and explains that on some occasions the cadence does not actually fall in pitch, but may take other inflectional forms. These will be mentioned presently. It is important now to understand that Rush employs the same concept of cadence as did some other writers—that it is the effect of bringing the voice to a rest at the end of grammatical units. Rush believes this function to take place always on the last three syllables, whereas other writers were not so definite.

The works of writers previous to Rush will now be cited to show how they postulate that cadence (now to be regarded as the effect of partial or complete termination) is achieved.

There are primarily three writers who attempt to list forms of cadence, although there are others who discuss the cadence generally. The earliest was Kames, whose preface to the Elements of Criticism was written in 1763. His list is made in combination with a summary of forms of accent and pause as well as cadence, but his attempt to designate methods of bringing phrases to stops is easily seen.

A line of the first order is of all the most spirited and lively: the accent, being followed instantly by a pause, makes an illustrious figure: the elevated tone of the accent elevates the mind: the mind is supported in its elevation by the sudden unprepared pause, which rouses and animates: and the line itself, representing by its unequal division an ascending series, carries the mind still higher, making an impression similar to that of going upward. The second order has a modulation sensibly sweet, soft, and flowing; the accent is not so sprightly as in the former, because a short syllable intervenes between it and the pause: its elevation, by the same means, vanisheth instantaneously: the mind, by a falling voice is gently prepared for a stop; and the pleasure of uniformity from the division of the line into two equal parts, is calm and sweet. The third order has a modulation not so easily expressed in words: it in part resembles the first order, by the liveliness of an accent succeeded instantly by a full pause: but then
the elevation occasioned by this circumstance, is balanced in some degree by the remitted effort in pronouncing the second portion, which remitted effort has a tendency to rest. Another circumstance distinguishes it remarkably: its capital accent comes late, being placed on the sixth syllable; and this circumstance bestows on it an air of gravity and solemnity. The last order resembles the second in the mildness of its accent, and softness of its pause; it is still more solemn than the third, by the lateness of its capital accent; it also possesses in a higher degree than the third, the tendency to rest; and by that circumstance is of all the best qualified for closing a period in the completest manner.

But these are not all the distinguishing characters of the different orders. Each order, also, is distinguished by its final accent and pause: the unequal division in the first order, makes an impression of ascending; and the mind at the close is in the highest elevation, which naturally prompts it to put a strong emphasis upon the concluding syllables, whether by raising the voice to a sharper tone, or by expressing the word in a fuller tone. This order accordingly is of all the least proper for concluding a period, where a cadence is proper and not an accent.

Kames' arrangement of the various orders of ending phrases and sentences suggests an effort to explain the various forms of cadence on the basis of the vocal characteristics of accent, pause and pitch which create the effect of termination. His description seems cumbersome, but it is clearly an organized treatment of the forms of cadence.

Enfield, who wrote originally in 1774, unwittingly made several classifications of cadence while condemning the practice of making cadences at the end of a sentence. (The following quotation is from the 1836 edition, but Rush's personal copy was 1817). He apparently thought the pure cadence was always a drop in voice, but his further description of what the voice might do at the end of phrases and sentences is additional material on the subject.

Before a full pause, it has been customary in reading to drop the voice in an uniform manner; and this has been called Cadence. But surely nothing can be more destructive of all propriety and energy than this habit. The tones and heights at the close of a sentence ought to be infinitely diversified, according to the general nature of the discourse, and the particular construction and meaning of the sentence. In plain narrative and especially in argumentation, the least attention to the manner in which we relate a story, or support an argument in conversation, will show, that it is more frequently proper to raise the voice than to fall it at the end of a sentence. Interrogatives, where the speaker seems to expect an answer, should almost always be elevated at the close with a peculiar tone, to indicate that a question is asked. Some sentences are so constructed, that the last words require a stronger emphasis than any of the preceding; whilst others admit of being closed with a soft and gentle sound. Where there is nothing in the sense which requires the last sound to be elevated or emphatical, an easy fall, sufficient to show that the sense is finished, will be proper. And in pathetic pieces, especially those of the plaintive, tender, or solemn kind, the tone of the passion will often require a still lower cadence of the voice. But before a speaker can be able to fall his voice with propriety and judgement at the close of a sentence, he must be able to keep it from falling, and to raise it with all the variation which the sense requires. The best method of correcting an uniform cadence, is frequently to read select sentences, in which the style is pointed, and frequent antitheses are introduced; and argumentative pieces, or such as abound with interrogatives.\footnote{Rush gives Walker credit for considerable invention in the matter of the melody of the cadence. In fact, he says that after a perusal of all the existing writings he finds only one, Walker's, which treats of cadence at all on the basis of inflection. Walker does have some remarks on the cadence that are quite detailed. He does not list any complete arrangement of forms of cadence, but in various parts of his text reference can be drawn to show an analysis quite similar to Rush's.}

One type of cadence Walker indicates in the following:

\footnote{William Enfield, The Speaker (London: Thomas Tegg and Son, 1835), 10.}
The comma, or that suspension of voice annexed to it, which marks a continuation of the sense, is most frequently accompanied by the rising inflexion, as in the following sentence: "If Caesar deserves blame, he ought to have no dame."11

In listing the rules for the use of inflections Walker makes continued use of combinations of inflections which Rush would show to be forms of cadence. As a matter of fact, each type of cadence Rush lists can be found in Walker's list of rules for inflection. There is one in particular, the final cadence, 12 that can be discovered in Walker's description of inflection. In Rule II for Compound Series, he says:

When two successive members, each of which consists of more than a single word, concludes a sentence, the first member is to be pronounced with a rising inflexion and the last with the falling inflexion in a lower tone of voice called the concluding inflexion.13

It is interesting to note that in Rush's 1810 copy of Walker he says opposite this statement of Walker's that the "concluding statement" should be called the "triad of cadence," which is one of the forms of cadence Rush lists. In this same comment Rush agrees with Walker's Rule I for Compound Series, which allows for a cadence of a rising inflexion. These last two examples are mentioned to show how Walker's entire system of inflection, like Rush's, is of necessity involved in the presentation of the principles of cadence. Rush in many cases agrees with Walker, although in general he believes Walker too hasty in his judgments. More will be presented on inflections in the chapter

dealing with that subject.

Walker has a section in the 1781 edition which he calls The Final Pause or Period. In the Rhetorical Grammar (1814) this title appears as On The Period, and the Method of Forming a Cadence. Several quotations from this chapter are included below to show further the nature of Walker’s observation on cadence.

But though the tone, with which we conclude a sentence, is generally well understood, we cannot be too careful in pronunciation to distinguish it as much as possible from that member of a sentence, which contains perfect sense, and is not necessarily connected with what follows. Such a member, which may not be improperly called a sententiola, or little sentence, requires the falling inflexion, but in a higher tone than the preceding words; as if we had only finished a part of what we had to say, while the period requires the falling inflexion in a lower tone, as if we had nothing more to add. But this final tone does not only lower the last word, it has the same influence on those which more immediately precede the last; so that the cadence is prepared by a gradual fall upon the concluding words; every word in the latter part of a sentence sliding gently lower till the voice drops upon the last. 14

And here it will be absolutely necessary to observe, that though the period generally requires the falling inflexion, every period does not necessarily adopt this inflexion in the same tone of voice; if sentences are intimately connected in sense, though the grammatical structure of each may be independent on the other, they may not improperly be considered as so many small sentences making one large one, and thus requiring a pronunciation correspondent to their logical dependence on each other; hence it may be laid down as a general rule, that a series of periods in regular succession are to be pronounced as every other series; that is, if they follow each other regularly as parts of the same observation, they are to be pronounced as parts, and not as wholes. 15

These last two references describe the complete cadence which Rush indicates is made by the Falling Triad. Walker has much more to

14. Walker, Elements (1781), I, 265; see also almost identical quotation in Rhetorical Grammar (1814), 128.

15. Walker, Elements (1781), I, 267; Rhetorical Grammar (1814), 128.
say about cadence, but to include it in this discussion would be to place a greater emphasis than is needed upon the details of the theories existing before Rush, whereas the main purpose is to show merely that theories existed prior to Rush.

What, then, are the forms of cadence that Rush describes? He classifies them according to the constituent concretes of the last several syllables of a phrase or sentence. The names he gives are dependent upon the numerical positions of those syllabic concretes. The cadence itself, according to Rush, implies the downward movement of pitch through the interval of a third, the radical of each syllable being one tone below that of the preceding radical. The various forms of cadence move through these three tones in individual ways.

The first form is a rising triad; i.e., there are three complete radical and vanish movements on the last three syllables. The vanishing movements of the first two syllables of the triad have rising inflections, while the last syllable has a falling vanish, the total fall of pitch being through the interval of a third. This is known as the rising triad, because of the rising vanish of two of the constituents. Rush illustrates this as follows:

The rising triad cadence gives a feeling of a complete stop, but is not absolutely final as is the falling triad. It was referred to above

16. This and the following classification can be found in Philosophy (First Edition, 1827), 126 ff; also Fifth Edition (1859), 189 ff.
in connection with Walker's treatment of cadence.

The falling triad is like the rising triad except that the 
vanish of all three constituents is a falling inflection, as follows:

![Diagram of falling triad]

The rising and falling triad, due to their use of three complete 
constituents, are known as the tripartite forms.

The next two types are Duads, which Rush defines as consisting 
of only two syllables, with the inflection interval still being that 
of a third. In one of these, the third form of cadence, the first two 
constituents coalesce on one syllable. The last constituent has its 
normal treatment. Two syllables are involved, two radical and vanishing 
movements are used, but the interval of pitch and duration of a triad 
is consumed. Notice in the following illustration that the first 
symbol is somewhat larger than the second to indicate that it replaces 
the first and second symbols of the examples above.

![Diagram of duad]

The fourth form of cadence is like the third except that the 
last two of the three constituents of the cadence, instead of the first 
two, are blended together into one radical and vanishing movement.

![Diagram of fourth form of cadence]
In both of these last two forms there are only two syllables involved, hence, a Duad. Their effect is of only partial stops, and indicates a connection between the phrase which it terminates and the one which is to follow. In fact, the second of these two, the Second Duad, has a rising vanishing movement on the first syllable which creates the greatest degree of connection between phrases that is possible. Porter refers to this same effect when he speaks of the "Pause of Suspension," which he says denotes that the sense is unfinished, and requires the rising inflection.\(^{17}\) The First Duad has a has a falling vanish on both syllables and it consequently creates the fullest suspension without obstructing the progress of the sentence.

The fifth form of cadence, according to Rush, is the Feeble Cadence, or one in which all three constituents of the cadence are appropriated to one long syllable with the vanish falling the interval of a third, thus:

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/ \n\ /\n```

This creates a feeling of suspense between one phrase and another and is quite weak as a cadence. Maury seems to imply this same effect of a single cadence in the following in which he also indicates the likelihood of a cadence being weak.

Never conclude your sentences with monosyllables, unless they are sufficiently sonorous to strike the ear, and to assist the cadence of a period.\(^{18}\)

\(^{17}\) Porter, *Rhetorical Delivery*, 51.

The sixth form of the cadence as shown by Rush is the False Cadence. In this case the second constituent is omitted and there is a distinct break from the vanish of the first syllable to the radical of the second syllable. Note the following:

It can be said that the contribution to the concept of cadence which is original with Rush lies in this classification and the later applications he makes of it. But, as is the case with other of Rush's descriptions, the specific detail of his analysis has been hard to follow, and consequently in many instances has fallen into disuse or simplification. Thus, the part that was original with Rush is not the part that is remembered. On the other hand, he is given credit for the general principle of cadence which was an invention of theorists before him. An accurate description of the acceptance of the ideas of Rush may be a work of value for a later study.

Rush treats of the cadence in two other connections: the first, the cadence of the chromatic melody, and second, the cadence of interrogative sentences.

The discussion of the cadence of the chromatic melody does not add appreciably to the theory or application of cadence. Rush says that all the forms are sometimes produced on the chromatic scale instead of the diatonic, and there are slight differences effected when this is the case. However, nothing of importance would be gained by developing this aspect.

As to cadence of interrogation, Rush's main idea seems to be that the same forms of cadence exist, but with variations in the
directions of the vanishing movement. In other words, where the
Falling Triad has the vanish fall on each constituent in a declaratory
cadence, if the effect were to make the sentence a question, the vanish
of the last constituent would make a distinct rise in pitch.

To summarize, the concept of cadence as a means of bringing
phrases, clauses and sentences to terminations with various degrees
of finality is not new with Rush. His particular classification and
description is unique, but the basic idea is generally in accord with
writers before him.

In making the foregoing analysis of cadence, the term pause has
been carefully avoided to prevent a confusion with the principles of
cadence. This has been necessary because pause is a natural result of
cadence, and cadence elicits a particular type of pause. Rush defines
pause as "... that occasional silence in discourse which is greater
than the momentary rest between syllables."19

Sheridan makes a similar definition: "Stops or pauses, are a
total cessation of sound during a perceptible, and in numerous
compositions, a measurable space of time."20

Before explaining how Rush treats the subject of pause, it is
important to realize what other writers associated with pause as
causative factors. Sheridan continues the above comment with:

The use of these is equally necessary to the speaker,
and to the hearer. To the speaker, that he may take breath,
without which he cannot proceed far in delivery; and that he
may relieve the organs of speech, by these temporary rests,
which otherwise would be soon tired by continued and uninter-

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20. Sheridan, Lectures on Elocution, 94.
ruptured action: To the hearer, that the ear also may be relieved from fatigue, which it would otherwise endure from a continuity of sound; and that the understanding may have sufficient time to mark the distinction of sentences, and their several members. These pauses being thus necessary and useful become ornamental also in verse, when reduced to exact proportions of time, in the same way as in music.  

Walker bases almost his entire discussion of pause on grammar. The punctuation of the sentence determines the pause which is to be used. In fact, the terms now applied to marks of punctuation were applied by Walker to the pauses themselves; thus, a comma does not mark, but is, the shortest pause. He closely knits his system of pause with the intonation pattern of the preceding phrases, but Walker’s whole system of inflections as well as the description of pauses is based on grammatical relationships. He says, for instance:

To reduce what has been said into something like a system, we shall endeavor to bring together sentences in every variety of construction, and mark, as carefully as possible, such pauses as are necessary to pronounce them with clearness, force and variety.  

Sheridan considers the need of pauses for the comfort of both speaker and audience, but further suggests the connection of pause with inflection as in the following:

... certain notes of the voice, which declare of what kind the pauses are, at the instant they are made; and inform the mind what is expected of them; whether the sense is still to be continued in the same sentence; whether the succeeding one is to be the last member of the sentence; whether more are to ensue; or whether the sentence be closed, and a new one is to begin.

Sheridan comments that there might be a distinction made between

21. Idem, 94.
pauses as part of the inflectional system and those employed to help
give sense to grammatical form. He says:

There are two sorts of pause, one for sense, and one
for melody, utterly distinct from each other. I shall call
the former, Sentenial, the latter, Musical pauses. The
sentenial pauses are those which are known to us by the name
of stops, and have names given them and marks in writing; as
the comma, semicolon, colon, and full stop.24

What then, were Rush's reactions to these approaches of Sheridan
and Walker, and how did he propose to describe the use of pause?

Rush never mentions the physical and psychological need for a
pause, as Sheridan did, but he does subscribe in part to the
grammatical factor. He does not go into detail like Walker and other
grammarians, for he makes only one chief distinction between the
substantive and the verb.25

Rush does insist, however, that there is a close connection
between the intonation pattern and pause. He says:

The character and efficacy of pauses consist, in a
great measure, of the phenomena of intonation; and a just
definition of them would, perhaps, be more properly founded
on variations and distinctions, produced by the phrases of
melody, than on the different duration of the time of rest.
I am not informed that any other writer, besides Mr. Walker,
has taught the necessity of regarding the inflections of the
voice, in the history of pauses.26

Rush would not agree with Sheridan that there ever was a pause
created purely for the sake of melody. However, he certainly did
agree that pause was related both to melody, or intonation, and to
grammatical construction.


Rush's main description of pause is explained by his forms of cadence. When a particular cadence is created, a pause should follow of a duration in keeping with the effect of the cadence. If a Feeble Cadence or a Second Duad is used, for example, a pause should be brief, because the thoughts of the adjacent phrases are connected. As Sheridan says, it is the "pause of suspension." 27

It does not seem necessary to dwell on an explanation of Rush's ideas of pause, for, as described in the early part of this chapter, he varies from most elocutionists of the day only in his relating it to the specific forms of cadence. Rush says himself 28 that the kinds and uses of pause are a matter treated extensively in the art of elocution, and that consequently he would not develop it at length.

In view of the evidence herein presented, it is clear that Dr. Rush contributes nothing new to the concept of cadence and pause beyond specifying them on the basis of the radical and vanishing movement. The fundamental meaning of both these subjects was a development which preceded him.

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27. Idem, 264 f.
Chapter 12

Of Pitch and Inflection

The subject of pitch and inflection has so many ramifications that an organized and concise discussion of it is difficult. Practically all texts in speech have important descriptions of the element of pitch, although all vary exceedingly in their treatment. Rush devotes many pages to his development of the theory of pitch in speech, and has been accredited with starting much that is now popular pedagogical technique. It has been seen in Part Three\(^1\) of this study that he did contribute something new in his concept of the specific interval in inflections.

In a summarizing list\(^2\) was indicated the substance of Rush's observations on the meanings created by inflections of various kinds. Although Rush says considerably more about pitch, the rest of his material on the subject appears to have been taken from the philosophies of other writers before him. In fact, Rush himself says:

... Quality, or kind of sound; Time; Force or the variations of strength and weakness; Pitch or the variations of acuteness and gravity; and Abruptness. These distinctions are universally known.\(^3\)

Rush has laid claim to originality of purpose and observation, but apparently in such subjects as pitch and inflection he admits that some of the ideas presented in his text are also available elsewhere. This chapter will show what treatment had been given to pitch and inflection before 1827.

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1. See pp. 65-145.
2. See pp. 131 ff.
Several outstanding writers had concerned themselves with the subject of pitch, and many others had treated various aspects of it. For the moment, it would be valuable to consider the general points of view of a selected few, and then to show later how the various phases are developed by Rush.

In the first place, this discussion should go back to the Greek system of accents. It hardly seems necessary to quote directly from that era when a later review of their literature on the subject of pitch presents such a good reference. Monboddo quotes from Dionysius of Halicarnassus in the following:

I come now to the passage before us, in which the Halicarnassian, after having laid it down, that the beauty of composition consists in the melody, rhythm, variety, and lastly, what is proper or suitable to the subject; and after having told us, that the composition of words, even in prose, is a kind of music, differing from singing or instrumental music only in quantity, that is, the more or less, not in quality or kind; and that words have their melody, rhythm, and other things above mentioned, as well as music; he proceeds to explain the melody of words as follows.

"The melody of common speech is measured nearly by one interval, that namely which is commonly called the διστάτε νότος. Nor does it rise beyond three tones and a half toward the grave. But every word has not the same tone; for some are sounded with an acute tone, some with a grave, and some have both. Of these last some have the acute and grave blended together, in the same syllable, which are called circumflexed syllables; others have them on different syllables, each of which preserves its own proper accent, whether grave or acute, distinct and separate from that of any other. In the disyllables of this kind, the one is grave and the other acute, and betwixt these there can be no middle; but in words of many syllables of whatever kind, there is but one which is accented acute, while all the rest are grave. This is the melody of speech; but vocal and instrumental music use more intervals." 4

4. Monboddo, Essays, 283. The quotation from Dionysius, Monboddo says, is from the 11th section of his treatise on composition.
This passage not only shows, as I have said, that the Greek accents were really notes of music, but also gives us the measure of them, and further marks the difference between the melody of speech and music: which he makes to consist in two things; first, that the melody of speech does not rise above a fifth, whereas music goes to an octave, or much higher; secondly, the degrees or intervals in music, either below or above the fifth, are exactly marked. But that was not the case in speech; for the voice did not rise exactly to a fifth on the acute accent, but near to it, so as sometimes to be above it, and sometimes below it. And this must necessarily have happened, as the voices of the speakers were of greater or less compass, or their ear more or less just.  

From this it can be seen that the Greeks made a musical approach to speech inflection, but regarded speech as immeasurable, on account of its continual motion. They described the rising inflection, the falling inflection and the circumflex, even though they called them by the names of acute, grave, and circumflex accent. This Grecian philosophy of the melody of speech should certainly be remembered in an evaluation of the modern analyses of the subject.

Monboddo accepted the Greek point of view, but questioned whether it applied to modern language. He thought the speech of the ancients was more melodious than modern language, which made use of accent more as a percussion of sound. Monboddo thought melody should be largely confined to the field of music. "Melody, as I have already observed belongs not to language, as articulated voice, but as sound, being common to it with music."  

On the other hand, Monboddo must have recognized the inflectional nature of modern expression; he even suggests that someone ought to invent a notation of how the voice does actually move. Steele quotes

the following from Monboddo:

"There is in our clauses, or ends of our sentences, not only a fall of the voice, but also, I think, a change of tone. [It is to be wondered whether he is referring here to quality.] This may be accounted part, and it appears to me the principle part, of the melody of our speech; for if it be neglected, the ear, as you observe, is cheated, and it really is very offensive. An exact notation of how much the voice is let down in the conclusion of periods, with respect both to loudness and tone, according to the practice of the best speakers might, I think, be very useful; for I have observed, that many speakers offend in this article; some keeping up their ends too high, to use a phrase of Mr. Bayes, some letting them down so low as not to be distinctly heard; some changing the tone too much, and others too little. And so much for the melody of our language."

Steele is the one who supplied this notation. Probably Steele should really be considered the first modern to make a detailed effort to systematize the subject of pitch and inflection in speech. In fact, Rush in several penciled notes in his copy of Steele makes comments showing partial approval of his work.

As a matter of fact, Steele in one place in his Essay is over the threshold of the Rush province of analysis. Lord Monboddo, upon reading the original Essay on the Melody and Measure of Speech, had raised the question to Steele,

... whether there be any difference with respect to tone, betwixt the accented and unaccented syllables of words in English; that is to say, whether the voice does not rise or fall in its tone, or do both, upon what is commonly called the accented syllable, as upon any other period.

Steele took the trouble to answer him, and in doing so came close to Rush's type of observation, for he not only indicated what type of inflections occur on these accented syllables, but what they

7. Steele, Essay, 105.
8. Idem, 56.
tend to mean. Rush is more enthusiastic in his agreement with this portion of Steele's writing than he is with most of it. Rush said in a note: "True! Tendency here toward the meaning of intonation!"9

This comment was made by Rush upon the following answer of Steele to Monboddo:

... it is evident, from the several examples I have given, that in English the heavy syllable, has sometimes the grave accent, though oftener the acute; and that the light syllable has sometimes the acute accent, though oftener the grave.

In our language, generally, the last syllable of any imperfect sentence (while the attention is to be kept up, for the sense of the whole, yet in suspense,) ends in the acute; and all the complete periods end in the grave.

Questions, though in the same words, are sometimes simple, and sometimes tacitly imply a threat, or some condition, not otherwise expressed than by accent and emphasis.10

Furthermore, Steele proposes definitely that expression is dependent upon pitch changes, which according to Rush's marginal note is a "new idea in Intonation, but not definite." Steele said:

But if it be admitted, that a change of accent may alter the sense of an expression and that Mr. Garrick may accent his words with more grace and significant propriety than a clown, it should seem that a method of accenting words and sentences, as pronounced by the most correct speakers, ought to promise some future utility.11

Also:

This specimen, I hope, will show that our language has the same title to syllabic accents, and perhaps as fixed, as those of the Greeks; for it is not probable, that the Greek tongue should have been denied the convenient power of marking the difference, between an interrogative and a positive

9. Rush's marginal notation in his personal copy of Steele, 87.
10. Steele, Essay, 87.
expression, by the change of accent.\footnote{12

At this point Steele proceeds to give specimens of intonation, by his system of symbols, which show that interrogation is produced by one type of accent, while positive expression is the result of another.

It is not in the province of this study to describe in detail the systematic symbolism of the various writers in their attempt to record the variations of the voice. The comparisons and contrasts in fundamental beliefs of the writers, especially as they influenced Rush, are more important. However, Steele's system of notation is described, because it is so much like that used in present day textbooks of speech instruction.

Steele makes all his notations upon a five-line staff which is subdivided between adjacent lines into halves and quarters. Steele confined his notation to a five-note range, which complies with Dionysius' opinion that intervals in speech never "rise above a fifth." Rush, it will be remembered, allows the voice the range of a full octave and more. Even though, as will be seen later, Steele does not believe that variations of less than a whole tone can possibly make any difference in the meaning to be conveyed, and even though he explains that the slides of the voice cannot be measured in terms of a chromatic scale, he makes a great point of detailing his symbolic recording with sharps, double sharps, and triple sharps. The actual movement of the voice as it changes its pitch is by use of a solid line as follows:

\begin{center}
\includegraphics[width=0.5\textwidth]{diagram.png}
\end{center}

\footnote{12. Idem, 156.}
In this respect Rush has departed considerably from Steele, for Rush's characters are more descriptive of the radical and vanishing movement.

It should be noted here, that Steele accounts for the rising inflection \( \uparrow \), the falling inflection \( \downarrow \), the acute-grave circumflex \( \widehat{\downarrow} \), and the gravo-acute circumflex \( \widehat{\uparrow} \). The Greeks made mention of only one type of circumflex. Steele has added the inverted form, making the four exist exactly as they did later in Rush's Philosophy and as they do today.

Steele summarizes his own contributions to the analysis of the pitch elements of voice in the following:

First, That the sound or Melody of Speech is Not Monotonous, or confined like the Sound of a Drum, to exhibit no other changes than those of Loud or Soft.

Secondly, That the changes of voice from Acute to Grave, and vice versa, do not proceed by pointed degrees coinciding with the divisions of the chromatic-diatomic scale; but by graduations that seem infinitely smaller (which we call slides); and though altogether of a great extent are yet too rapid (for inexperienced ears) to be distinctly subdivided; consequently they must be submitted to some other genus of music than either the diatomic or chromatic.

Thirdly, That these changes are made, not only upon words and upon sentences, but upon syllables and monosyllables, also.

Fourthly, and lastly, That in our changes on syllables or monosyllables, the voice slides, at least, through as great an extent as the Greeks allowed to their accents; that is, through a fifth, more or less.13

Opposite the last part of the second point above, Rush marginally noted: "Speech makes up four genera: The concrete, the diatomic, the semi-tonic, and the tremulous."14


14. Rush's marginal notation in his personal copy of Steele, 17.
Thus far the general ideas of Dionysius, Monboddo, and Steele have been mentioned. The Greeks invented the idea of the specific melody of speech; Monboddo somewhat questioned it; Steele attempted a conclusive argument that melody did exist in a uniform and observable fashion. Where Rush and Steele disagreed was upon the amount or degree of pitch change that could be measured.

As was noted in Chapter Nine, Murdoch makes a reference to a Mr. James Wright. Like Steele, Wright apparently made use of the interval of a fifth as a convenient norm for the notation of inflections. Even though in the following quotation Wright speaks of "certain degrees of intonation," the sample Murdoch gives of Wright's symbolic representation of inflection shows the interval of the fifth as an invariable.

To quote from Murdoch:

I have mentioned Mr. James Wright as a disciple of Walker's, and an able writer on the inflective system. He is considerably in advance of the former in his treatment of inflection, as well as in some other points. To quote his own words:

"Very little consideration will convince the student that phraseology is composed of certain members or clauses which modify, and of others which are modified; and, by attending to oral discourse, he will easily discover that there is a characteristic feature of the voice in the pronunciation of a proposition which indicates either continuation or completion. As, therefore, the least signification of one or more clauses may be restrained or altered by the power and influence of others more significant; so, in the delivery of them, that the progress and completion of a whole passage may be gradually conveyed to the ear, the attention must be kept alive by suitable degrees of suspension of the voice. If, from this, we take a more enlarged view of oral sounds, we shall find that in the

15. See p. 139, Footnote 25.
arrangements of diffuse periods there may be members
signifying completeness as to meaning which have certain
degrees of intonation, and which, to indicate their just
relations to a whole, terminate with proportionate
qualities of voice. Thus, in the most rude and
uncultivated appearance of the subject before us, we are
sensible of something like leading principle and rule;
but the indefinite idea of sound and its relation to
articulate voice, seems to have involved the thoughts of
those hitherto interested in the inquiry in considerable
obscurity. For this reason, perhaps, the method for
conveying information to students in elocution has not
been sufficiently pertinent.

"Frequently the spirit of a proposition depends more
upon the peculiar turn of voice than upon that stress
which assists in placing varieties in contradistinction
one to another."

He therefore proceeds to treat the subject with more
accuracy as regards the measurement of the individual inflections
and their relative position on the scale under certain modifica-
tions of sense, although the general principle of their uses in
sentences remains the same, as seen from the remarks just quoted.
In his notation he makes use of the musical staff, with certain
symbols, to mark the direction and extent of the slide or
inflection, as thus:

A scale of the principle sic inflections in compact
sentences.

The voice, in pronouncing "A," ascends from the middle
of the scale to the top; in pronouncing "B," it descends from
the middle to the bottom; these inflections, therefore, are
called extreme rising and falling inflections. 16

Likewise Murdoch says:

He [Wright] also observed that the distance traversed
by the inflection is governed by the excited feelings, claiming
the musical fifth for the measure of the inflection of ordinary
unexcited speech; still, he offers no close analysis of this

mental and vocal relationship.\textsuperscript{17}

Wright seems to make an interesting combination here of the use of the interval of the fifth as commented upon by Steele, and another technique which Wright had learned from Walker. The latter often explains rising and falling inflection on the basis of its use to compare and contrast. For instance, from Plate II of Walker's \textit{Elements} the following sentence is drawn:\textsuperscript{18}

\textbf{Did he do it voluntarily or involuntarily?}

A rising inflection is contrasted with a falling one to help achieve the contrast of idea. Wright employs this technique of Walker's while using the interval of the fifth as a convenience in notation. The following is another scale attributed to Wright by Murdoch which bears out this contention.\textsuperscript{19}

\begin{center}
\textbf{Is it $A'$ or $B^3$ or $B^3$ or $C^4$?}
\end{center}

Thus, it seems that, as far as the evidence presented by Murdoch discloses, Wright did not contribute much toward the description of the specific intervals of inflection, but only adapted the systems of Walker and Steele to his own particular design.\textsuperscript{20}

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\textsuperscript{17} Idem, 42.

\textsuperscript{18} Walker, \textit{Elements} (1781), I, opposite 143.

\textsuperscript{19} Idem, 41.

\textsuperscript{20} In the \textit{Theory of Elocution}, vii f., Smart criticizes Wright for not adhering strictly to the principles set down by Walker. He further states (v) that one of his main purposes in publishing the \textit{Theory} was to invite comparison between his work, which follows Walker closely, and that of Wright, which deviates from Walker in many particulars.
Chapman, whom Rush seemed to respect quite highly, made an abridgement of Steele which was quite faithful and which gave all credit to Steele. The Music or Melody and Rhythm of Language by Chapman is worthy of note in this survey of important writers on this particular subject. Before quoting from his book it would be interesting to read a copy of a letter from Rush to the Reverend Mr. Chapman on May 17, 1827, while the latter was a teacher of elocation in Edinburgh. It follows:

Sir:

I possess your work on the "Music or Melody and Rhythm of Language."—In searching for old books of recorded knowledge on this subject I found an Edinburgh copy of the year 1818 in a bookstore of this city.

Finding that the subjects of the musical relationship of speech are interesting to you, and that your knowledge, as much as practical experience has convinced you that elocution may be a science, and may therefore be otherwise taught than by imitation alone, I have been induced to beg your acceptance of the volume which accompanies this letter, the aim of which is to set forth a description of the elements and system of speech; respectfully and zealously offered for the acceptance of those whose profession may take them to the exercise of oral instruction.

I am, sir, respectfully yours,

[signed] James Rush. 21

Rush apparently made some use of Chapman's book, and thought there was material in it which approached the type of analysis he himself wished to make. The following two quotations from Chapman show the nature of his text, and the close resemblance it bears to the work of Steele.

21. From the collection of Rush's letters and papers on file in Ridgway Branch, Library Company of Philadelphia. This letter is unpostmarked and was apparently a first draft.
When applied to song, music may be defined, a series of sounds moving distinctly from grave to acute or from acute to grave, by intervals, and always dwelling for a perceptible space of time, on one certain tone.

But when music is applied to speech, it may be defined, the melody of speaking; in this application it moves rapidly up or down, not by notes, but by slides, in which no graduated distinction of tones or semi-tones can be measured by the ears; nor does the voice dwell distinctly, for any perceptible space of time, on any certain uniform tone, except the last tone, on which the speaker rests or makes a pause.22

Speech consists of the five following accidents, without a correct knowledge of which accurate instructions in the art of reading and speaking cannot be communicated. 1. Accent. 2. Quantity. 3. Pause, or rest. 4. Emphasis, or Cadence. 5. Force, or quality of sound.

First, Accent. It is acute ', grave ', or both combined ∪ ∩, in a variety of circumflexes. These are, in this system, restored to their true, original meaning, viz., the slides of the voice, and are called the accents or notes of melody.

These notes or accents are totally distinct from force or want of force, upon any syllable or word; nor have they anything to do with emphasis, rhythmus, metre or quantity ...

Besides these varieties, there is also a manner of gracing the notes, which, as in singing, is always a pleasure. This is done by what the Italians call the Appogiatura or supporter. As the quantities of these little notes, in music, are always taken out of the next note that follows, so it is in speech; instead of a plain acute, we may use a little circumflex grave-acute, thus ∨, or sometimes acute-grave, thus ∧; and sometimes, instead of a plain grave, thus ∨, or thus ∨.23

Chapman, as a follower of Steele, shows a great similarity to Rush, and precedes him in the presentation of ideas on pitch.

Walker and Porter are two other writers before Rush who deal at length with this subject. Porter's study was contemporary with Rush, his Rhetorical Delivery being published in 1827 when Rush's first


ed ition came out. Porter had published another, earlier work entitled *Lecture on the Analysis of Vocal Inflections*, but Rush, too, had already been engaged in observation for a long time. Porter, however, chiefly simplified the material of Walker in the matter of inflection and consequently will be quoted presently by way of summary of Walker.

Walker's point of view found only meagre approval by Rush, for Rush felt that the depending solely upon the grammar of a sentence was an awkward way of describing the true phenomenon of inflection. (See Photostat No. 7). He also thought that Walker was in no position to declare rules of inflection, because he had not made sufficient observation. For instance, Walker makes the following rules concerning the Simple Series in a sentence:

**Simple Series**

**Rule I:** When two members consisting of single words commence a sentence, the first must have the falling and the last the rising inflexion.

**Rule II:** When two members consisting of single words conclude a sentence, as the last must naturally have the falling inflexion, the last but one assumes the rising inflexion.

**Rule III:** When three members of a sentence, consisting of single words, succeed each other in a commencing series, the two last are to be pronounced as in Rule I and the first with the falling inflexion in a somewhat lower tone than the second. 24

To these rules Rush has written an objection in the margin of his personal copy: "These rules are not exactly true. The want of analysis is here obvious." "Not true." 25

It would be of little value to describe in detail all the


inflectional combinations Walker lists in his grammatical analysis. But it is very important to observe his claim to originality in the description of the types of pitch movement. Walker says in his 1781 edition that there are only two movements of pitch, the rising and falling inflection.

... we shall find, that the primary division of speaking sounds is into the upward or downward slide of the voice, and that whatever other diversity of time, tone, or force, is added to speaking, it must necessarily be conveyed by these two slides.26

Later, in a pamphlet called The Melody of Speaking Delineated27 he claimed to have discovered the circumflex inflection in its two forms. This "new" idea is then incorporated into the body of the 1810 edition of his Elements:


When the First Edition of this Work was published I considered the human voice as divisable into two inflections only. Sometime after, upon reconsidering the subject more maturely, I found there were certain turns of voice which I could not distinctly class with either of these two inflections. This discovery mortified me exceedingly. I feared my whole labour lost ... It did not, however, continue long. The same trial of the voice which assured me of the two opposite inflexions, the rising and falling, soon convinced me that those inflexions which I could not reduce to either of these two, were neither more or less than two combinations of them: And that they were real Circumflexes, the one beginning with the rising inflexion and ending with the falling upon the same syllable; and the other beginning with the falling, and ending with the rising upon the same syllable. This relieved me from my anxiety; and I considered the discovery of so much importance, that I immediately published a small Pamphlet, called The Melody of Speaking Delineated; in which I explained it as well as I was able by writing, but referred the reader to some passages where he could scarcely fail to adopt it upon certain

words, and perceive the justness of the distinction. I was confirmed in my opinion by reflecting that prior, and independently of actual practice, these modifications of the human voice must necessarily exist. First, if there was no turn or inflexion of the voice, it must continue in a monotone. Secondly, if the voice was inflected, it must either be upwards or downwards, and so produce the either rising or falling inflexion. Thirdly, if these two were united on the same syllable, it could only be by beginning with the rising, and ending with the falling inflexion, or vice versa; as any other mixture of these opposite inflexions was impossible. A thorough conviction of the truth of this distinction, gave me a confidence which nothing could shake. I exemplified it, via voice, to many of my critical friends, who uniformly agreed with me; and this enabled me to conceive and demonstrate the Greek and Latin circumflex, (so often mentioned, and so totally unintelligible to the modern) but occasioned not a little surprise (since it is as easy to conceive that the voice may fall and rise upon the same syllable, as that it may rise and fall) why the ancients had the latter circumflex, and not the former. Some probable conjectures respecting this point, as well as the nature of accent, ancient and modern, may be seen at the end of a Work lately published, called A Key To The Classical Pronunciation of Greek and Latin Proper Names.

Although Walker here mentions the Greek concept of circumflex, he does not admit he was influenced by it in his own observation. Likewise, he makes no reference to Steele, who takes full account of the inverted circumflex of which Walker claims to be the sole discoverer.

A simplification of Walker's ideas occurs in the following quotation from Porter:

**Rules:**

**Rule I.** When the disjunctive or connects words or clauses, it has the rising inflexion before, and the falling inflexion after it.

**Rule II.** The direct question, or that which admits the answer of Yes or No, has the rising inflexion, and the answer has a falling. **Note I.** This sort of question ends with the rising slide, whether the answer follows it or not. **Note II.** When Exclamation becomes a question, it demands the rising slide.

28. Walker, Elements (1810), iii f.
Rule III. When negation is opposed to Affirmation, the former has the rising, and the latter the falling inflection.

Rule IV. The Pause of Suspension, denoting that the sense is unfinished, requires the rising inflection.

Rule V. The rising slide is used to express Tender Emotions. Grief, compassion, and delicate affection, soften the soul, and are uttered in words, invariably with corresponding qualities of voice. The passion and the appropriate signs by which it is expressed, are so universally conjoined that they cannot be separated.

Rule VI. The rising slide is commonly used at the last pause but one in a sentence. The reason is, that the ear expects the voice to fall when the sense is finished; and therefore it should rise for the sake of variety and harmony, on the pause that precedes the cadence.

Rule VII. The Indirect Question, or that which is not answered by Yes or No has the falling inflection and its Answer the same.

Rule VIII. The language of authority and of surprise, is commonly uttered with the falling inflection. Bold and strong passion so much inclines the voice to this slide that in most of the cases hereafter to be specified, emphatic force is denoted by it.

Rule IX. Emphatic Succession of particulars requires the falling slide. The reason is, that a distinctive utterance is necessary to fix the attention on each particular.

Rule X. Emphatic Repetition requires the falling slide.

Rule XI. The final pause requires the falling slide.

Rule XII. The circumflex occurs chiefly where the language is hypothetical.29

One respect in which Porter does disagree with Walker is in the matter of the inverted circumflex. Porter insists Walker has a bad ear, for a downward circumflex, he says, is no different from a downward slide.

29. Porter, Rhetorical Delivery, 47 ff.
Another fault of Walker is, that the elements of speaking tones are not presented in any intelligible method; but are so promiscuously intermingled throughout his work, as to give the character of obscurity. The view of these elements to which he devotes about a hundred and fifty pages, after he enters on inflection, I here attempted to comprise in a short compass. 30

The foregoing discussion has presented evidence from the writings of several important authorities showing that extensive analysis of pitch and inflection had been made before or concurrently with Rush's first edition. The purpose of the remainder of this chapter is to point out Rush's descriptive analysis of pitch and inflection, and to show that almost all of the specific ideas he presents on this phase of expression can be found in works prior to 1827.

Rush took exception to much of Walker's analysis, but his own observations may have been motivated by a reference in Walker's Elements. Walker quotes Smith in his Harmonics in describing the sliding motion of the voice. 31 Apparently Walker took Smith's notes as an authoritative point of departure for his own approach to a grammatical system of inflections. Upon seeing Walker's reference to Smith, Rush acquainted himself with the book and was stimulated by this same reference. As was mentioned in an earlier chapter, 32 Rush said in his Analysis of the Human Intellect:

When pursuing the study of the principles of Music, I first learned, from a note on the third page of Dr. Smith's

30. Idem, 45.

31. Walker, Elements (1781), I, 115. The reference here cited is Harmonics, 3, Note C.

32. See p. 34.
Harmonics, that distinction perceived by the Greeks, between the continuous or sliding movement of the voice, in speech, and its discrete or skipping transition, by the steps of the musical Scale. This drew my curiosity toward further observation and reflection, previously to leaving the subject of the mind. And having, about this latter period, been accidentally induced, by a mere instinct of what I supposed to be a propriety in speech, to make some instinctive remarks to a friend, on the matter of varying the voice in reading, and on giving a proper close to sentences; I was led to an incipient analysis, by the above described distinctions between the vocal and the musical movement.33

The passage that seems to have been an inspiration to both Walker and Rush follows:

The Greek musicians rightly described the difference between the manner of singing and talking. They consider two motions in the voice, . . . the one continued and used in talking, . . . the other discrete and used in singing, . . . In the continued motion, the voice never rests at any certain pitch, but waves up and down by insensible degrees; and in the discrete motion it does the contrary; frequently resting or staying at certain places, and leaping from one to another by sensible intervals: Euclid's Introductio Harmonica, p. 2. I need not observe, that in the former case the vibrations of the air are continually accelerated and retarded by turns and by very small degrees, and in the latter by large ones.34

Having been thus stimulated by this passage, Rush drew upon all available resources, and upon his own observation until he developed his own organization of the inflections of the voice. In addition to the material on the specific interval, he proposed certain classifications.

To begin with, Rush accepted the classification of inflections made by the Greeks and Romans, by Steele, Walker, Chapman, and Porter,


34. Robert Smith, Harmonics, or The Philosophy of Musical Sounds (London: T. and J. Merrill, 1769), 5, footnote C.
namely, the rising, falling, and circumflex. Rush does not use the
term circumflex, but calls that movement the wave. He may have
borrowed that term from the wave that Smith refers to in the Harmonics.
Rush says that the wave was known to the Greeks and to Steele and
Walker, and makes no claim to the invention of the concept.35

Rush divides the wave into direct and indirect, which is
identical with the acute-grave and the grave-acute which Steele designates. Rush does go a little beyond the others, however, in pointing
out that an inflection might also be either single or double or continued.
In other words, its rising and falling movement might go further than
a single rise and fall, but might make the cycle twice or more. Walker
apparently does not recognize the "double circumflex." Then, Rush
continues, it might also be equal or unequal, meaning that it might fall and
rise an equal interval, or it might fall a greater interval than it rises,
or vice versa. For these additional observations36 Rush apparently can
be given sole credit.

Rush also describes key. But he says its use as a term in speech
can be paralleled to that of its musical connotation only if one refers
to the keys of the voice. For, he says, there is a new key established
with each new concrete in that the radical and vanish of that concrete
are in the key established by the concrete. The final triad cadence
tends to determine the general key of the preceding phrase, but no
specific key can be determined, really, and therefore the term is a poor

36. Described in the chapter on Of the Wave of the Voice, Philosophy (First Edition, 1827), 279.
one. If it is to be used, the musical sense should be dropped.

Otherwise, the term modulation would do better. Rush indicates that in speech the meaning of key is a reference to the upper, middle and lower keys. He admits, however, that the concept of keys and modulation had been in use for a long time. The following references show how some of the earlier writers had used the terms.

Sheridan said that one normally has three "pitches" of voice: high, low and middle. He recommends the middle range so that a person may have greater flexibility above and below the mid-point.

Walker has a section on modulation of voice in which he says:

- Modulation of Voice. Every one has a certain pitch of voice, in which he is most easy to himself and most agreeable to others; this may be called the natural pitch: this is the pitch in which we converse; and this must be the basis of every improvement we acquire from our art and exercise: for such is the force of exercise upon the organs of speech, as well as every other in the human body, that constant practice will strengthen the voice in any key we use it even though this happens not to be the most natural and easy at first.

Porter says in a footnote in his Analysis:

- By key note, I mean the prevailing note, that which you hear when a man reads aloud in another room, while you cannot distinguish any words that he utters.

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40. Walker, Elements (1781), II, 226. See also Walker, Rhetorical Grammar, 225. The first five lines in the above quotation are identical in the Grammar. But after the word exercise, (line 5), Walker has a period in the Grammar followed by this statement: "In order, therefore, to strengthen this middle tone, we ought to read and speak in this tone as loud as possible, without suffering the voice to rise into a higher key: . . ." Walker uses key here again as he uses it in the passage quoted above from the Elements.
41. Porter, Rhetorical Delivery, 98, Footnote.
And again,

In every man's voice this governing note varies with circumstances, but it is sufficiently exact to consider it as threefold; the Upper pitch, used in calling to one at a great distance; the Middle, used in conversation; and the Lower, used in cadence, or in a grave emphatic undertone.\(^{42}\)

The voice that is on a base-key, if clear and well toned has some advantages in point of dignity. But a high tone, uttered with the same effort of lung, is more audible than a low tone . . . The same principle doubtless explains another fact recently alluded to, that feeble lungs are inclined to a high pitch; this being the effort of weakness, to make up for what it lacks in power, by elevation of key; an effort which succeeds perfectly for a few words, but produces intolerable fatigue by being continued.\(^{43}\)

Notice the reference to key in the following from Enfield, written about 1774.

**Rule III.** Acquire a compass and variety in the height of your voice. The monotony so much complained of in public speaking, is chiefly owing to the neglect of this rule. They generally content themselves with one certain key, which they employ on all occasions, and on every subject; or if they attempt variety, it is only in proportion to the number of their hearers, and the extent of the place in which they speak; imagining, that speaking in a high key is the same thing as speaking loud; and not observing, that whether a speaker shall be heard or not, depends more upon the distinctness and force with which he utters his words, than upon the height at which he hitched his voice.

But it is an essential qualification of a good speaker, to be able to alter the height, as well as the strength and the tone of his voice, as occasion requires. Different species of speaking require different heights of voice.

To acquire the power of changing the key on which you speak at pleasure, accustom yourself to pitch your voices in different keys, from the lowest to the highest notes you can command. Many of these would neither be proper or agreeable in speaking; but the exercise will give you such a command of

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\(^{42}\) *Idem*, 103.

\(^{43}\) *Idem*, 104.
voice, as is scarcely to be acquired by any other method. 44

Thus the concept of key, or modulation, was a form of criticism
and instruction long before Rush.

The terms slide and skip were also discussed by Walker and
others. They are really equivalent to the terms concrete and discrete,
which Rush borrowed from musicians and from the ancients. Steele, too,
uses the terms freely.

Rush does present a slightly new aspect, however, when he names
six phrases of style in pitch movement.

When two or more concretes occur successively on the
same radical pitch it may be called the phrase of Monotone.

When a concrete is above or below a preceding one,
the phrase may be termed respectively, the Rising and Falling
Diatone.

When three concretes successively ascend— it is called
the Rising Tritone.

When there is a train of three or more, alternately
a tone above and below each other, it may be called an Alternation
or the Alternate phrase.

When three concretes gradually descend in the radical
pitch at the close of a sentence, the phrase may be distinctly
termed the Triad. 45

One would expect this type of musical analysis from Rush, and
after becoming accustomed to the terms it can easily be seen that there

44. Enfield, op. cit., 4 f. This and other material was used by
William Scott in Lessons in Elocution (Boston: Lincoln and Edwards,
1820). In Scott's book (p. 38) he acknowledges Walker's Speaker as his
source, but Rush penciled a correction in his personal copy of Scott
(Plymouth: Ezra Collier, 1825) to indicate Enfield's Speaker. A fur-
ther point of interest is Robb's comment (op. cit., 44) that "William
Enfield's Speaker, 1780, resembled Scott's Lessons in Elocution."
However, it was Scott who obtained his material from Enfield.

45. Philosophy (First Edition, 1827), 120.
is nothing new to the description except a somewhat greater specificity.

It might be interesting to point out here, however, how Rush has come to be so particular in his explanations of the monotone phrase. It should be remembered that Rush did not believe a pure monotone could exist because of the presence of the radical and vanishing movement. However, he did allow for the monotone phrase, which still possesses the radical and vanish movement that keeps it from becoming a pure monotone.

In the 1810 edition of Walker is this discussion:

> It has been observed upon a former occasion, that the different inflexions of the voice upon particular words are not so perceptible in verse as prose: and that in the former, the voice sometimes entirely sinks the inflexion, and slides into a monotone. This propensity of the voice in reading verse, shows how nearly poetry approaches to musick; as those notes properly called musical are really so many monstouns, or notes without slides, in different degrees of the musical scale, and sometimes in the same degree. This approach to a monotone, especially in plaintive poetry, makes it often difficult, and sometimes impossible to distinguish whether the slides that accompany the pauses and emphasis of verse are rising or falling: and at those pauses where we can easily distinguish the inflexions we sometimes find them different from such as we should adopt in reading the passage if it were prose: That is, we often find the rising inflexion at a pause in verse, where, if it were prose, we should use the falling: an instance is given of this at the end of the series (p. 134); and to this many more might be added.46

After reading this, Rush apparently was more determined to develop and describe his opinion of radical and vanish and of the true movement of the voice in speech. He penciled into the margin opposite

46. Walker, Elements (1810), 264. See also the identical passage in the 1781 edition, II, 178 f, except for minor differences.
the paragraph: "A definition of Music - Let me take care to specify my idea of the monotone phrase." 47

It should be commented still further that Rush made a particular effort to describe the intonation of the question. Walker had done this in his grammatical system; 48 but only by a detailed comparison could it be shown whether Rush added anything new to his observations. If he did it was of minor significance.

It should be said, however, that Rush described the inflection of interrogation on the basis of two types of expression: the thorough interrogative expression, and partial interrogative expression. The thorough refers to the use of rising inflection on every syllable of the sentence, while partial means that the rising inflection was used on only some of the syllables. Rush's entire explanation of the inflection is in the terms of these two types of expression.

This completes the survey of material on pitch and inflection which existed prior to or concurrently with Rush's first edition of 1627. Although Rush presented a new approach to some phases of this subject through his concept of radical and vanish, still he contributed only minor additions to existing theory.

Ideas which were already known before 1827 included that of rising and falling inflection, circumflex inflection, inverted circumflex, slide, skip, key, and the giving of symbols to inflections. To these factors which Rush accepted and included in his complete and clarifying analysis, he added the idea of the double and continued

47. Rush's marginal notation in his personal copy of Walker, 264.
circumflex (wave), the six phrases of style, and all the information pertaining to the specific interval of inflection as described in Chapter Nine.

It has been the purpose of this chapter to show how most of Rush's treatment of pitch and inflection is similar to that of others who had written before him, and to designate what phases of his own work are new.
Chapter 15

Of Quality and Vocal Signs of the Passions

The chapters in Rush's Philosophy which seem to have received the greatest revisions during the course of six editions are the ones dealing directly with the verbal expression of the mind and passions, and with the physiological description of voice. In Chapter Three of this study it was pointed out that Rush's Philosophy was primarily a physiological investigation, intended to describe the expression of voice, which Rush thought of as the physiology of voice; and that this physiological approach was the offspring of a scientific study of even greater significance, namely, the Analysis of the Human Intellect. It is significant that some of the most important revisions of his book involve those two subjects.

Before beginning a discussion of quality and passion, then, a quick survey of those changes may aid in a general clarification of Rush's ideas on this subject, and on his entire philosophy.

In the first place, Rush's chapter on the Causative Mechanism of Voice received a thorough revision in the second edition. The main business of that chapter is a description of the qualities of the voice. Various methods of producing voice and the various functions of the vocal mechanism itself create effects which are heard as distinguishable qualities. Rush soon was able to make new observations of the quality of voice as produced by the anatomical structures in which he was interested. These alterations in judgment were written into the second edition (1833).

But the effect his vocal analysis had on his understanding of the intellect was slower in materializing. It has already been pointed
out in Chapter Three that Rush's development of the concept of states of the mind was not greatly evidenced until the third edition (1845), had no definite form until the fourth (1855), and did not receive fullest treatment until the fifth edition in 1859.

Parallel to those changes were the revisions to the chapter on Vocal Signs of Thought and Passion. The first, second, and third editions are almost identical in their treatment of this subject, but in the fourth came a radical reworking to correspond to the new organization of the states of the mind. The vocal expression of the mind had to be explained on a new basis; and in the fifth edition three whole pages were added to reveal Rush's matured judgment on the expression of the mind—he was now ready further to analyze the mind itself. In the fourth edition (1855) Rush says:

There are indeed resources enough, in the possible combinations of all the vocal signs, to furnish an expression for every thought and feeling; but this full ordination has never been made.1

But in 1859, only four years later, he says:

There may indeed be resources enough, in the possible combinations of all the modes, forms, degrees, and varieties of the vocal signs, to furnish an expression for every thought and passion; but this estimate and classification having never yet been made, the subject must lay over, for an age of the Physical Philosophy of the mind, as well as of the voice.2

The sixth edition, though slightly reworded to be more concise, is identical with the fifth. Following the first citation above, the remaining pages of the chapter on Vocal Signs of Thought and Passion are new in the fifth edition, and continue to point out the connection

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between vocal expression and the states of the mind.

Why does this seem so important? Because here is the culmination of Rush's thinking on vocal expression. Here he has at last become satisfied that he has logically and completely observed the physiological functioning of the organs of expression. Here he has shown that he felt ready to return to an analysis of the seat of these peripheral manifestations—to a study of the mind itself. Note this quotation, from a page that followed the reference above:

But with our present analytic knowledge of the signs of thought and passion, and with a visible and conventional notation for these signs, we may distinctly perceive, study, correct, and improve our own speech, and that of others, both of past and present time, with the silent exercise of the imagination. We know that the perceptions of the several senses, are represented in the memory; that the images through the eye, and the ear, are clearer and more readily excitable, than through the others; and that we may memorially think of any peculiarity in the voice.  

Note the similarity of this passage with the language of the *Analysis of the Human Intellect* as referred to in Chapter Three.

Rush did return to the study of the mind after 1869, for that was his next publication, appearing in 1866.

Having reviewed Rush's more profound purpose as it was developed in several editions, namely, to observe and to describe vocal expression as the fifth constituent of the mind itself, attention must now be drawn to the particular phase of this growth that is demonstrated in the material on quality and vocal signs of the passions.

It is quite significant that the first listing of the qualities

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4. See p. 36, Footnote.
of the voice is in the chapter on the vocal mechanism, and that the chapter called Of the Quality or Kind of Voice is very short and furnishes little additional information. This indicates again Rush's intention to describe the phenomena of speech without presenting a system of rules. Note the following from the chapter on Quality:

It would be easy to select from authors and from familiar discourse, phrases or sentences, that require respectively the kinds of voice here enumerated. But I designed originally, to limit the pages of this work, consistently with the intention of definite description; aiming to make known the hitherto untold elementary principles of speech, rather than to burden the shelves of literature with the continued repetition of compilation. There is no mode of diagram that can represent these qualities of sound: and every attempt to make them plainer than they already stand, in their metaphorical designation, would be fruitless of success.5

It is obvious here that, although he recognises the importance of an understanding of the qualities, he does not think it of value to attempt to assign specific qualities to specific ideas and emotions. A further explanation of that attitude will be made presently.

Not only is it true that the qualities of voice are a part of the discussion of the vocal mechanism, but also that almost nothing is said of the actual anatomy or physiology of the voice that is not part of an explanation of an expressive function of the voice. Space does not permit here a review of the mechanism of voice in a comparison of writers, because it was not Rush's intention in this chapter (or in any chapter) to describe the anatomical structure of the voice as a subject in itself. He believed that not enough was known factually about the vocal mechanism to make a full description

5. Philosophy (First Edition, 1827), 147 f.
of it. Being a Doctor of Medicine, he was well informed on all that was known on this subject, and there are any number of books in his personal library that describe the organs of speech. But to attempt a comparison of these would be to misplace the emphasis in Rush. He did not intend to treat conclusively of the mechanism of voice, for the greater part of his whole book was a seeking after the physiological evidence of that mechanism.

Likewise, to describe the expression of the voice, or a subject like vocal quality, without attempting to explain its anatomical basis Rush felt to be unreasonable. The two fields are interrelated. One cannot understand the quality of voice without knowing what structures are involved in the production of them. On the other hand, Rush says that one cannot be sure of the function of an existing anatomical structure without observing in nature the expressive element produced by it.

This chapter first attempts, then, to point out Rush's concept of quality as it pertains to the causative mechanism of voice.

Rush varies in his listing of the qualities, but contrary to present day opinion, he mentions a total of only five. The nasal quality is not mentioned except as he describes the nasal subtonics. The oral and pectoral are not described at all by Rush; in fact, the writer has been unable even to find the terms in any part of the seven editions. The guttural is mentioned only as a tone already described by rhetoricians. He does not contribute to a study of it beyond the

6. See p. 103 f.

7. Robb, op. cit., 95 f, lists the guttural unreservedly as one of the five qualities as described by Rush.
following paragraph:

There is a harsh quality of utterance called the Guttural voice, which is produced by a vibratory current of the air, between the sides of the pharynx and the base of the tongue, when apparently brought into contact above the glottis. If then the term 'voice from the throat,' which has been one of the unmeaning or indefinite designations of vocal science, were applied to this guttural quality, it would precisely assign at least some locality to the mechanism. 8

Of the remaining four qualities, natural, whisper, falsette, and orotund, Rush does present considerable information. But these have been treated in various ways. For instance, the whisper is listed as one of the qualities of voice in the discussion of every edition until the sixth. In the sixth edition the term vocality is substituted for quality in most places. Consequently, the whisper is not considered with the others in the chapter on the Vocality of the Voice, for there is no vocality in a whisper.

Another alteration in his treatment of the qualities is the fact that in the major revision of the second edition, mentioned above, 9 orotund is eliminated in the following sentence:

Nor are we acquainted with the mechanism which respectively produce those varieties of sound called the Natural voice, Whisper, and Falsette. 10

Just why this omission was made is obscure, for in his discussion of orotund he continues to say that it cannot be accurately determined just what the mechanical cause of the orotund is. However, it may be that in the 1833 (second) edition he did not wish to refer to orotund

10. Idem, 77.
as synonymous with "pure tone," because he wanted to explain that particular quality before classifying it. In the first edition the above sentence adds "and what in vocal science is called 'pure tone.'"\[11. Philosophy (First Edition, 1827), 93.\]

Rush makes considerable point of the fact that voice has been described too much by analogy with musical instruments, and not enough by actual study of the functioning vocal apparatus. Likewise, he condemns the practice of the theorists in placing the locality of the qualities with utter disregard of any anatomical facts. He says:

Each of these varieties has received some theoretic explanation; and their locality has, without much precision, been severally assigned to the chest, throat and head.

These discordant and fictional accounts have been in some measure the consequence of conceiting a resemblance, between the organs of the voice and common instruments of music; and whilst those fluctuations of opinion which never never belong to truth, have represented the vocal mechanism to be like that of mouthed or reeded or stringed instruments, the spirit of these unfounded or still incomplete analogies has been carried to the outrage of all similitude, by comparing the track of the fauces, mouth and nose, to the body of a flute; and by ascribing a want of accuracy in intonation to an inequality of tension between what are called the 'strings of the glottis.' We are too much disposed to measure the resources of nature, by the limited inventions of art.\[12. Philosophy (Second Edition, 1838), 77 f.\]

And yet, it is some of these very criticisms Rush projected that have come to be associated today with his own philosophy. Note, for instance, O'Neil and Weaver's chapter on "Quality" in The Elements of Speech, which accounts for a description of the pectoral quality by Dr. Rush and which credits him with telling how it is produced.

Dr. Rush maintains that it [pectoral] comes from an over-expansion of the pharyngeal walls, producing the effect of vibrations within a resonator a little too large for

\[11. Philosophy (First Edition, 1827), 93.\]
\[12. Philosophy (Second Edition, 1838), 77 f.\]
Rush apparently did not hold that the qualities he discussed were first observed by him, for throughout his entire treatment of quality he points to the fact that other authors have described quality, but have done so without proper authority.

To understand just what Rush's attitude is toward the scientific investigation of quality it is necessary to read several of his comments on the subject. They follow:

To know a thing as this phrase is applied in most of the subjects of human inquiry, is to have that opinion of its nature, which authority, analogical argument, and partial observation, prompted by various motives of vanity or interest may create. To know in natural philosophy, we must employ our senses and contrive experiments on the subject of inquiry; and admit no belief of it which may not at any time be illustrated by demonstration. Physiology is too full of the first of these modes of logic: and no branch exhibits it more conspicuously than that of the mechanism of the human voice.  

When therefore we seek to know the mechanism of the voice, it should be to see, or to be truly told, by those who have seen, the whole process of the action of the air on the vocal organs, in the production of the quality, force, pitch, and articulation of speech. This method, and this alone, produces permanent knowledge; and elevates our belief above the condition of vulgar opinion and sectarian dispute. The visibility of most of the parts concerned in Articulation has long since produced among physiologists, some agreement as to its causes. But after all I have been able to see or learn on the subject of Quality and Pitch, I must fairly confess an entire ignorance of the mode of their mechanical production; and the great difference on this point among authors has never impressed me with much respect towards their opinions.

What Rush attempts to contribute to an understanding of quality is the evidence observable through the ear and through the visible

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15. Idem, 80.
movements of vocal structures. He says:

Aiming in this work to serve truth with my senses, I shall describe what is distinguishable by the ear in the different kinds of voice, together with the visible structure and movement of the organs; in the hope that by an acknowledgment of our present ignorance, and by future observation and experiment, other inquirers may arrive at the certainty of doctrine, which through a different method of investigation has never yet been reached.18

What was Rush's explanation, then, of the four qualities?

The first quality discussed in the second edition is the natural voice. This is the one used in "ordinary speaking." In order to be concise, a list of the various things he says about the normal quality follows:

1. It is used in ordinary speaking.
2. It employs a complete pitch range.
3. It is capable of discrete, concrete, and tremulous motion.
4. It is probable (but not proved) that it is made by the vibration of the chords of the glottis, as are all alphabetic elements that have vocality.
5. It is used to express moderate or lively sentiments of colloquial dialogue and of familiar lecture and discourse.17

The next quality discussed is the Falsette. This is

... that peculiar voice in which the higher degrees of pitch are made, after the natural voice breaks or outruns its power. The cry, scream, yell and all shrillness are various modes of the falsette.18

In brief concerning the Falsette:

1. The notes produced by voice above the highest practicable note of the normal are in the Falsette.
2. All the elements except atonics may be made in Falsette.

3. Falsette can be made in almost the same pitch range as the Normal.

4. Other writers have thought the difference in quality between Falsette and Normal was due to use of different mechanisms.

5. Rush does not believe there is evidence to support the contention that Falsette is made with a different mechanism from the Normal.

6. Rush does not know what causes the Falsette, but he gives reasons why certain areas cannot be considered causative. Areas which do not contribute to the Falsette, are:
   a. Uvula.
   b. Vocal avenues above the glottis (including nasal passages).

7. Some of its uses are as an emphatic scream of terror, or as part of the expression of pain or surprise.

The Whispering voice, Rush says, is a "constituent of the atomic elements," and is usually used in expressing secrecy. He consistently uses the term aspiration in connection with the whispering of subtonics and tonics, but he never refers to the quality as the aspirate. However, in all editions he does include a separate chapter on the aspirate only as a modification of the Whisper. Again, he says that physiologists do not know the mechanical cause of the whisper, but that

   It has been ascribed to the operation of the current of air on the sides of the glottis whilst its chords are at rest; whereas vocality is said to proceed from the agitation of the air by the vibration of those chords.

Rush believes that the pitch of a whisper cannot change, unless changed by the shape of the mouth, tongue and fauces, or in other words, through articulation; whereas, the pitch of the normal and falsetto is changeable with no visible alteration of the articulators.

But, if I have not been deceived in my observation, the transit through the scale of whisper is made by taking different elements for the successive steps of the movement; that is, each whispered element is in itself incapable of variation in pitch, whilst its true articulation remains unchanged.21

Further to explain the whisper he designates three modes of whispering. (This material is not part of the first edition). These three are: articulated, whistled and sufflated. In all three of these it is seen that change in pitch is created by change in the alphabetic element pronounced, [u] being the lowest pitch and [l] the highest. Thus, the whisper is a phenomenon of articulation, with no dependence upon the laryngeal vibration. Just where the actual fundamental sound of a whisper is made, Rush does not say.

In beginning his discussion of orotund, Rush says:

The mode of voice which I am now about to consider, is not perhaps specifically different from the natural voice; but is rather to be regarded as an eminent degree of fullness, clearness, and smoothness of its quality; and this may be either native or acquired.22

By the Orotund voice, I mean that natural or improved manner of uttering the elements which exhibits them with a fullness, clearness, strength, smoothness, and a ringing or musical quality, rarely heard in ordinary speech; but which is never found in its highest excellence, except through long and careful cultivation.

22. Idem, 89 f.
By Fulness of voice, I mean that grave and hollow volume, which approaches towards hoarseness.

By Clearenness, a freedom from nasal murmur and aspiration.

By Strength, a satisfactory loudness or audibility.

By Smoothness, a freedom from all reedy or guttural harshness.

By a Ringing quality of voice,—its distant resemblance to the resonance of certain musical instruments.23

Since there seems to be so much confusion in present day literature as to just what Rush said about the qualities, and the orotund in particular, it seems best to quote much of this discussion from Rush's own text in order that there may be no mistaking his point of view.

In the first place, Rush says he does not know the mechanical structure of the orotund, but he cannot accept some of the common explanations of it. He complains, for instance, of the description of pure tone, which is another name used by previous writers for what he himself calls the orotund.

Connected with the subject of an improved quality of the singing voice which vocalists call 'Pure Tone,' there are a number of tones used to describe the mechanical causes of its different kinds and qualities. Among these, the causation applied by the phrases 'voce di testa' and 'voce di petto,' or the voices from the head and the chest, must be considered as altogether without foundation in physiology; and the notions conveyed by them, must be hung up beside those metaphorical pictures, which with their characteristic obscurity, have been in all ages, substituted for the unobtainable delineations of the real processes of nature.24

However, Rush presents a discussion of the process of breathing

23. Idem, 90.
which lends considerable clarification to an understanding of Orotund quality. He says:

... we perceive two modes in the act of respiration: the one being a continued stream of air throughout the whole time of expiration; the other consisting in the issue of breath by short iterated jets.25

The latter, he says, is usually the case in speech, but that if one "yields up the whole of the breath" 26, he has taken the first step toward the formation of the orotund. This continuous stream of air Rush associates with panting and sighing.

After having learned how to breathe so that long, smooth, singing tones can be produced in all the concrete slides of the voice, the next step in learning the orotund is to incorporate this practice into the speaking situation where short jets of air are required in the production of the syllables. Thus, if one is to make the orotund in speech, the same technique of breathing must be used in producing the short jets of air for speech as is employed for the continuous stream in the sigh.

Rush lists seven advantages in the use of the orotund which are mentioned here by way of conclusion of the discussion of that quality.

1. The mere sound is more musical than that of the common voice.

2. It is fuller than the common voice; and as its smoothness gives a delicate attention to the vanishing movement, its fulness, with no less appropriate effect, displays the stronger body of the radical.

3. It has the pureness of quality that gives distinction to pronunciation.

4. It has greater strength than the common voice.

25. Idem, 93.

5. It is more under the command of the will.

6. It is the only kind of voice appropriate to the master style of epic and dramatic reading.

7. As the orotund does not destroy the ability to use at will the common voice, it may be imagined how their contrasted employment may add the resources of vocal light and shade, if I may so speak, to the other means of oratorical coloring and design.27

It has been shown, then, that Rush proposed four qualities of voice, the whisper, normal, falsette, and orotund. A fifth quality, guttural, he mentions more as a defective sound than one claiming attention for normal speech. He has claimed no evidence proving how these qualities are produced, nor made any theoretical analogies to guess at where their production is "placed." He has attempted to show all the visible signs involved in the production of them.28

The material on quality has not been classified as being original with Rush. It has been said, however, that his approach to the description of them was different, but that he himself acknowledged they were already present in rhetorical literature at the time of his Philosophy. Where and under what circumstances did they exist? The following references show several places where they were treated previously by Rush.

There are numerous places where the whisper is referred to, but Cockin in 1775 makes particular comment upon it as the result of air passing through the glottis without causing it to vibrate.29

27. Idem, 96 f., and Philosophy (First Edition, 1827), 111 f.

28. The above material on quality has been quoted from Rush's Second Edition since no significant changes in his description of them occurred after 1833.

Cooke also mentions the **whisper**, in addition to several other types of voice. His careless use of the term **pitch** makes it uncertain just what he means by the items listed below, but they seem to be closely allied to the vocal qualities.

The tones of the speaking voice ascending from the lowest tones to the highest may be considered in the following series.

1st, A whisper audible only by the nearest person.

2nd, The low speaking tone or murmur—suited to close conversation.

3rd, The ordinary pitch or middle — suited to general conversation.

4th, The elevated pitch — used in earnest argument.

5th, The extreme — used in violent passion.  

Note in the following how Hastings refers to the guttural and nasal tones as defective qualities.

But a harshness, as well as a guttural, dental, labial or nasal quality of tone is often wholly to be attributed to a wrong conformation of the mouth, or what amounts to nearly the same thing, an improper modification of the slender vowels.

Mason makes some rather outstanding remarks on the matter of quality or "tone." There is a tendency in the following to furnish a classification.

Lastly, reading with a Tone.

Some have a womanish squeaking Tone; which, Persons whose voices are shrill and weak, and over-strained, are very apt to fall into.

Some have a singing or canting Tone, which the Speakers among the Quakers generally much affect and by which their

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Hearers are often much affected.

Others affect a high, swelling, theatrical Tone; who being ambitious of the Fame of fine Orators, lay too much Emphasis on every sentence, and thereby transgress the Rules of true Oratory.

Others affect an awful and striking Tone, attended with solemn Grimace, as if they would move you with every Word, whether the Weight of the Subject bear them out or not. This is what Persons of a gloomy or melancholy Cast of Mind are most apt to give into.

Some have a set, uniform Tone of Voice; which I have already taken notice of. And others, an odd, whimsical, whining Tone, peculiar to themselves, and not to be described; only that it is laying the Emphasis on Words which do not require, or deserve it.\footnote{32}

There are other writers who speak of the various tones or qualities, but some of these references are being reserved for a later comparison. Rush's attitude toward previous descriptions of quality has been noted, and his own observations on the natural, falsette, whisper, and orotund, have been listed.

The next consideration of this chapter is that of the verbal signs of the passions. What Rush meant by passion can be determined only by recalling his concept of the states of the mind. He does not make any distinction between passion and emotion, for he uses the terms interchangeably. He gives considerable explanation of passion as distinguished from thoughts of the mind or ideas, however. Kames, on the other hand, presents emotion and passion as having separate meanings.

An internal motion or agitation of the mind, when it passeth away without desire, is denominated an emotion; when desire follows, the motion or agitation is denominated a passion.\footnote{33}

\footnote{32. Mason, \textit{On Elocution}, 15.}

\footnote{33. Kames, \textit{Elements}, I, 49.}
Rush did not feel that to give further attention to the expression of passion was necessary after he had made his full treatment of all the speech elements.

I have already given a physiological description of the functions of the voice, and have pointed out their expressive powers as far as they denote simple thought, sentiment, feeling, emotion, or any other named conditions of the mind. This should satisfy the reader; since it describes in its own general way, all that to me, at least, is audible and capable of measurement. But former systems of elocution having embraced an inquiry, however, fruitless, on the delineations of the passions in speech; such a view, though superfluous after what has been said, may perhaps be demanded at my hand.

There is a hypocritical compliment always paid to originality, the contradictory spirit of which is, that mankind are eager to receive what is new, provided it is told in the old way. I can imagine that a few readers, even after all I have said on the elements of expression and the states of mind represented by them, may still object, that there is nothing said about the passions. Now, having done my duty to the subject by saying in a general way what was necessary, about the thing, I am going to satisfy a prejudice by a formal detail under the word. But let it be distinctly understood, that this is done only for the purpose of giving another aspect to the subject of expression; and not in a forced or politic submission to any expected perversity of criticism.

This quotation shows quite clearly that Rush thinks he has sufficiently designated how each of the elements contributes to the expression of the passions without treating of that subject separately. He says that passion is shown by a combination of all of the elements of voice, and to attempt to designate any one element, or a mode within an element, as expressive of a single emotion is folly. Each interval of pitch, each quality, the various modes of time and force and abruptness have all been described and their significance in expressing ideas and emotions pointed out. To express an emotion is to employ

34. Philosophy (First Edition, 1827), 432.
all of those elements. Rush makes a rather interesting application of this idea in the following quotation, which is from a commentary he wrote, but apparently never published, on the acting of Mr. Booth.

... Mr. Booth satisfies the sentiment of the listener because he has been endowed by nature with that full gist of soul which enables him to put on the form of every passion, and he satisfies his ease and taste by clothing those passions, with that precise intonation, which nature has allotted exclusively to their several expressions, (and which anyone who will take the trouble to study the nature of these vocal expressions and competent investigations have pointed them out) will find that Mr. Booth is master of the true principles of the symbolism of speech. The structure of his melody, the application of his intonated emphasis, his Time, his Force, all exhibit the most dignified and finest dress of those instinctive expressions which once heard with force and truth in real life seek his elegance and power.35

On the other hand, there are some writers who held that quality alone was indicative of emotions and could thus be segregated from all the other elements. Hastings was apparently of that belief when he wrote:

Every one who is at all versed in elocution, knows, that in reading and speaking, there is a language of tones, which is, in some respects, peculiar to every passion or emotion of which the human mind is capable. How far this is the work of nature, or of early association, or how much it varies with the written and spoken languages of different nations, it is not now necessary to inquire. The real existence of a language of tones, however various its dialects may be, is universally acknowledged. It will be allowed, too, that the proper application of these tones, is peculiarly calculated to excite correspondent emotions both in the speaker who utters them, and in his auditors; while the neglecting, counterfeiting, or misapplying them, betrays dulness, affectation, illiteracy, or perhaps an entire destitution of feeling. While listening, we find little difficulty in understanding the import of these tones—we readily ascertain from them how far the speaker is influenced by feelings of emotions, or by affectation, and how much allowance also

should be made for the inveteracy of ill-form and early established habits; yet we are as unable to speak with minute precision on the subject, as on that of musical expression; and for the same reasons. No speculations concerning the pathetic accent; no laws respecting cadences, elevations of the voice, emphasis, pauses, or rhetorical slides; and, in short, no possible system of written rules will be found sufficient of themselves, to convey an adequate knowledge of good delivery. Much less can they supersede the necessities of oral instructions. Nor would every one be likely to distinguish himself in acquiring an agreeable manner, under advantages of instruction.36

On the other hand, Wilkes in 1759 seemed to recognize the importance of pitch changes as well as quality changes in depicting emotions, for he says:

Tragedy and Comedy seem to require quite different tones for their proper execution; sorrow, grief, pain, etc., require a voice flow, solemn and affecting, like the melancholy plaintive notes of an Adagio; Joy and Pleasure, which are the proper appendages and marks of Comedy, will naturally form the voice into the Spirituoso.37

Apparently Monboddo, in his argument with Steele, was more cognizant of a peculiar phenomenon of voice which was indicative of passion than was Steele. But Monboddo could not observe what the vocal characteristic was, and Steele certainly did not answer him satisfactorily. Monboddo asked:

Wherein . . . does the . . . difference consist betwixt the tone of passion and the musical tones of acute and grave? That there is such a difference I hold to be a certain fact. For one man will sing a tune so as to make it touch the heart of everybody who has any feeling; while another shall sing the same tune, the same notes, the same rhythm, and in the same key, but without any expression. Now I should be glad to know what makes the difference. Is it, that the one voice is clearer, sweeter, or more liquid than another? Or is there something more than all that?38

36. Hastings, op. cit., 47.
37. Wilkes, op. cit., 111.
38. Steele, Essay, 178 f.
But all that Steele could answer was a reiteration of everything he had already described. It prompted Rush to say in the margin: "Such confusion! This comprehends the whole of Steele's doctrine of Expression; and meager it is."  

Steele answered Monboddo:  

The tones of passions are distinguished by a greater extent of the voice both into the acute and the grave, and by making the antithesis, or diversity between the two, more remarkable. Also, by increasing the forte, and making contrasts occasionally between the forte and piano; and by giving extraordinary energy or emphasis, and blending the forte now and then with the heavy poise; and lastly, by sudden and desultory changes of the measure and of its modes; that is, from fast to slow, and vice versa; and from common to triple, and vice versa.  

...  

A great deal of this difference [between those who can, and those who cannot touch the hearts of others] lies in the tone of the voice, but a great deal more belongs to art, which comes under the head of taste, and is done by adding insinuating graces and by the discreet use of the staccato and sostenuto, the piano and forte, the swelling and dying away.  

Steele apparently thought pitch and loudness were the main contributing factors to the expression of emotion, while Monboddo realized there was another element involved.  

Kames, however, seems quite definite in his belief that quality of voice is the element which shows emotion.  

The external signs of passion are of two kinds, voluntary and involuntary. The voluntary signs are of two kinds: some are arbitrary, some natural. Words are obviously voluntary signs; and they are also arbitrary; excepting a few simple sounds being the same in all languages, must be the work of nature: thus the unpremeditated tones of admiration are the same in all men; as also of compassion, resentment, and despair. Dramatic writers ought to be well acquainted with this natural language of passion: the chief talent of such a writer is a ready command of the expressions that nature dictates to every person, when
any vivid emotion struggles for utterance: and the chief
talent of a fine reader is a ready command of tones suited
to these expressions.41

Certain sounds are by nature allotted to each passion
for expressing it externally. The actor who has these sounds
at command to captivate the ear, is mighty; if he have also
the proper gestures at command to captivate the eye he is
irresistible.42

To talk in the language of music, each passion hath
a certain tone, to which every sentiment proceeding from it
ought to be tuned with the greatest accuracy; which is no
easy work, especially when such harmony ought to be supported
during the course of a long theatrical representation. In
order to reach such delicacy of execution, it is necessary
that a writer assume the precise character and passions of the
personage represented; which requires an uncommon genius.43

The one who is most prominent for his treatment of quality as
the chief agent of passion is Walker. Rush criticises Walker severely
for his belief in this matter. He quotes Walker in three references,
one of which follows:

It now remains to say something of those tones which
mark the passions and emotions of the speaker. These are
entirely independent of the modulation of the voice, though
often confounded with it: for modulation relates only to
speaking either loudly or softly, in a high or low key; while
the tones of the passions or emotions mean only that quality
of sound that indicates the feelings of the speaker, without
any reference to pitch or the loudness of his voice.44

Rush even makes sport of Walker for his contention.

What for instance can be made of this definition?—
"The tones of the passions mean only that quality of sound

41. Kames, Elements, I, 347.
42. Idem, 349.
43. Idem, 366.
44. As quoted by Rush, Philosophy (First Edition, 1827), 434;
see also, Walker, Elements (1781), II, 272; or, Walker, Elements (1810),
308.
that indicates the feelings." Here instead of an explanatory description of a thing, we are presented with a truism in a paraphrase. For, as the terms passion and feelings are here synonymous, as well as those of tone and quality of sound, the proposition may stand thus: "the tones of the (or the tones which indicate the) passions, mean only the tones which indicate the passions;" or with less waste; thus; "the tones of the passions are the tones of the passions." 45

The following are further evidences from Walker's own publication of his belief that passion is expressed by quality.

The truth is, the expression of passion or emotion, consists in giving a distinct and specific quality to the sounds we use, rather than in increasing or diminishing their quantity, or in giving this quantity any local direction upwards or downwards; understanding the import of a sentence, and expressing that sentence with passion or emotion, are things as distinct as the head and the heart: . . . 46

In the next two quotations there seems to be an early record of the same concept of emotion which James and Lange projected more than a century later, and which has been accepted by many speech teachers today as good psychology in the teaching of expression.

We ought to study the effects and appearances of the passions, that we may be able to exhibit them when we are not really impassioned; and when we are to give passion its most agreeable expression. Mr. Burke has a very ingenious thought on this subject in his Origin of Our Ideas of the Sublime and Beautiful. He observes, that there is such a connection between the internal feeling of a passion, and the external expression of it, that we cannot put ourselves in the posture, or attitude, of any passion, without communicating a certain degree of the passion itself to the mind. The same may be observed of the tone of voice which is peculiar to each passion: each passion produces an agitation of the body, which is accompanied by corresponding agitation of the mind; certain sounds naturally produce certain bodily agitations, similar to those produced by the passions, and hence music has power over the mind, and can dispose it alternately to joy, or sorrow; to pity, or revenge. When the voice, therefore, assumes that tone,

46. Walker, Elements (1761), I, 325.
which a musician would produce in order to express certain passions or sentiments in a song, the speaker, like the performer on a musical instrument, is wrought upon by the sound he creates; and though active at the beginning at length becomes passive, by the sound of his own voice on himself. Hence, it is, that though we frequently begin to read or speak, without feeling any of the passion we wish to express, we often end in full possession of it. This may serve to show the necessity of studying and imitating those tones, looks and gestures, that accompany the passions, that we may dispose ourselves to feel them mechanically, and improve our expression of them when we feel them spontaneously; for by the imitation of the passion we meet it, as it were, half-way. 47

In the following display of the passions, therefore, nothing farther is intended, than such a description of them as may serve to give an idea of their external appearance, and such examples of their operations on the soul as may tend to awaken an original feeling of them in the breast of the reader. But it cannot be too carefully noted that, if possible, the expression of every passion ought to commence within. The imagination ought to be strongly impressed with the idea of an object which naturally excites it, before the body is brought to correspond to the suitable gesture. This order ought never to be reversed, but when the mind is too cold and languid to inibie the passion first, and in this case an adaptation of the body to an expression of the passion, will either help to excite the passion we wish to feel, or in some measure supply the absence of it.

The two circumstances that most strongly mark the expression of passion, are the tone of the voice, and the external appearance of countenance and gesture; these we shall endeavor to describe: 48

The interesting thing about Walker's further treatment of passion is, however, that most of his information was gleaned from Mr. Burgh's Art of Speaking, which he acknowledges. Walker continues with nothing very tangible about qualities, but injects some suggestions regarding types of inflection in the creation of the passion.

Porter, who, it will be remembered, got most of his information

47. Idem, II, 278.
from Walker, presents the same confusion about the use of inflection in display of emotion. He says:

In a few cases passion is expressed by tones which have no inflection; but more commonly inflection is what gives significance to tones. 49

But he continues in complete accord with Walker:

Without inquiring minutely into the philosophy of vocal tones, as being signs of emotion, we must take the fact for granted that they are so. And no man surely will question the importance of this language in oratory, when he sees that it is understood by mere children, and that even his horse or his dog distinguish perfectly those sounds of his voice which express his anger or his approbation. 50

Porter gets very near to Rush's concept, however.

In these cases, the change required consists chiefly in key and quantity. But there are other cases, in which these may be included, while the change consists also in the qualities of the voice.

It was remarked that tender emotions, such as pity and grief, incline the voice to gentle tones, and the rising slide; while emotions of joy, sublimity, authority, etc., conform the tones to their own character respectively. It is where this difference of emotion occurs in the same connexion, that the change I have mentioned in the quality of voice, is demanded, analogous to the difference between plaintive and spirited expression, or piano and forte, in music. 51

Before concluding this comparison of Rush's approach to the verbal signs of the passions with that of other authors, one other idea of Rush's should be brought out: that is, that there are two distinct classes of verbal signs: the natural and the artificial. This idea is first mentioned in the first edition, 52 but is developed considerably

49. Porter, Rhetorical Delivery, 34.
50. Idem, 35.
51. Idem, 123.
52. Philosophy (First Edition, 1827), 438.
further in the fourth and fifth editions. 53

The natural method is that class of vocal expression involving
the elements of speech. It is the natural language of man which we
have in common with lower animals. The artificial, on the other hand,
is the system of words which is the result of the artifice of man.

There are some emotions which can be expressed entirely by
natural expression, but the more abstract feeling of contentment, for
example, must of necessity depend upon the use of words. It is hard
to tell sometimes which of these two methods is the more powerful, for
some words can be given different meanings by different expressions,
and likewise the same expressions can have different meanings through
the use of different language symbols.

This idea is hinted at by Enfield in 1774:

There is the language of emotions and passions, as well
as of ideas. To express the latter is the peculiar province of
words; to express the former, nature teaches us to make use of
tones, looks and gestures.54

Sheridan presents almost exactly the same point of view that
Rush developed. He says:

So in order to feel what another feels, the emotions
which are in the mind of one man, must be communicated to that
of another, by sensible marks. That the sensible marks
necessary to answer this purpose, cannot possibly be mere
words, might be proved fully by a philosophical disquisition
into their nature. . .

Everyone will at once acknowledge that the terms anger,
fear, love, hatred, pity, grief, will not excite in him the
sensations of those passions, and make him angry or afraid,
compassionate or grieved; nor should a man declare himself to

54. Enfield, op. cit., 11.
be under the influence of any of those passions, in most
elegant and strong words that the language can afford, would
he in the least affect us, or gain credit, if he used no other
signs but words.55

And then continuing he says that emotions which cannot be
represented by words can be expressed only by the "true signs of
passion, which are, tones, looks, and gestures."56

It might be worth noting that Sheridan says nothing here about
inflections being indicative of emotion.

Sheridan, like Rush, points out the ability of all animals to
recognize the natural signs of passion. In fact, he develops that
idea in greater detail than does Rush.57

Burgh, whom Walker used so freely, also develops this idea.

Nature has given to every emotion of the mind its
proper outward expression, in such manner, that what suits
one, cannot, by any means, be accommodated to another.
Children at three years of age express their grief in a tone
of voice, and with an action totally different, from that,
which they use to express their anger; and they utter their
joy in a manner different from both. Nor do they ever, by
mistake, apply one in place of another. From hence, that is,
from nature, is to be deduced the whole art of speaking
properly. What we mean does not so much depend upon the words
we speak, as on our manner of speaking them; and accordingly,
in life, the greatest attention is paid to this, as expressive
of what our words often give no indication of. Thus nature
fixes the outward expression of every intention of sentiment of
the mind. Art only adds gracefulness to what nature leads to.
As nature has determined, that man shall walk on his feet, not
his hands; Art teaches him to walk gracefully.58

55. Sheridan, Lectures on Elocution, 122 f.
56. Idem, 123.
57. Idem, 126 f.
58. Burgh, op. cit., 8 (Italics in the original).
Thus the subject of quality and the verbal signs of the passions is concluded. Several things have been shown in this discussion:

1. That Rush objected to previous studies of quality, and in his own analysis postulated only ideas that could be clearly seen or heard.

2. That Rush did not say much that he is accredited with having said concerning the qualities.

3. That Rush described a general effect which each of the four qualities produces in expression, but did not claim quality to be the sole agent of the passions.

4. That Rush believed the verbal signs of the passions to be a complete use of all the elements of speech as he had previously described them.

5. That Rush concurred with Sheridan, Burgh and others in believing that there were two modes of expressing passion: (a) by the natural use of the elements of voice, and (b) by the man-made symbols, words.

This chapter furnishes further evidence that Rush is not being so accurately quoted today. It also continues to show how much of Rush's Philosophy is an adaptation of prevalent opinions of his day, as he found they fitted his observations and served the needs of a physiological analysis of voice and mind.
Chapter 14

Of Force

The chief reason for the inclusion of this short chapter on force is to give further explanation to Rush's concept of the various types of stress. These were listed in Chapter Five as inventions of Rush, but no further discussion of them was offered because they are a part of the larger subject of force. It is quite evident that Rush was not the first one to speak of the force of the voice, either as it pertains to accent and emphasis on words or syllables, or as it signifies the general loudness of the voice. His explanation of stress, therefore, actually shows more originality in approach than in subject matter.

What were some of the ideas on force and loudness that had been postulated before Rush's writing? Much of this subject has already been discussed as a phase of the concept of accent, but there is some additional material which concerns the general function of force and loudness. Before presenting Rush's concept of stress, then, it will be of value to examine this material contributed by earlier writers.

One of the earlier treatments of the subject was that of Steele. It will be recalled\(^1\) that he presented a very nice distinction between pulsation and remission (poise) regarding emphasis, and emphatic accent. But he shows also how it was necessary to think of the general loudness or forcefulness of the voice which would have the pulsation and remission effect as part of the larger expression. He used the musical terms \textit{forte} and \textit{piano} to designate general loudness and softness.

\(^1\) See p. 153 ff.
respectively. As was consistent with his practice, he used the Greek symbols to represent these two degrees of volume. Hence, the asper (*) and lenis (°), for forte and piano. Likewise, indicated crescendo, or increase in loudness, and indicated diminuendo, or a decrease in loudness.  

Sheridan, then, gives several rules for the development of adequate loudness. He often uses the term quantity to designate force and loudness, but it is clear here that he is concerned with the general force to be used in public speaking.

... he should daily exercise himself in reading, or repeating in the hearing of a friend; and that too in a large room. At first his friend should stand at such a distance only, as the speaker can easily reach, in his usual manner of delivering himself. Afterwards let him gradually increase his distance, and the speaker will in the same gradual proportion increase the force of the voice; for the method of increasing by degrees is easy in this as in everything else, when sudden transitions are impracticable; and every new acquisition of power enables you the better to go on to the next degree.

Let the speaker after having looked around the assembly, fix his eyes on that part of his auditory which is farthest from him, and he will mechanically endeavor to pitch his voice so as that it may reach them.

In the next rule, Sheridan advises speaking so that the voice will "fill the room." This will be accomplished, when there is such a quantity uttered, as not only will reach the extremities, but return also to the speaker. And a room may be said to be well constructed when this is effected by a moderate exertion of a common voice.

2. Steele, Essay, 11.
5. Idem, 110 f.
In further examination of the material on force the work of Walker is again considered. He makes the statement that if a person cannot place his voice so as to reach the farthest person in the room without perfect ease and comfort, he should not try too hard to achieve that end immediately. Instead, he should work up to it gradually. He presents a rather interesting development of that idea, however, when he says that inaudibility is caused more by improper pitch changes of the voice than by want of force.

A voice, therefore, is seldom inaudible from its want of force, so much as from its want of modulation; and this modulation depends so much on not suffering the voice to begin above its natural pitch, that too much care cannot be taken to guard against it.

He then proceeds to suggest rules for the lowering of pitch. It almost seems that his transfer of the emphasis from force to pitch even as regards audibility is to give him another opportunity to advance his belief in the modulation of the voice as the chief source of expression.

However, Walker does attempt to designate three degrees in the production of force. He says:

... we may observe, that all words are pronounced either with emphatic force, accented force, or unaccented force; this last kind of force we may call by the name of feebleness.

Emphatic force is apparently that greatest degree of force, which when applied creates more than syllabic accent, and gives an

emphasis to the word itself. Perhaps it is this emphatic force which Rush says is occasionally applied to syllables making it impossible to say that accent is a phenomenon of syllables, and emphasis of words. Accented force, according to Walker, is that medium degree of force which is applied to distinguish one syllable from another without any particular reference to meaning; and unaccented force is really the reduction of the force below that normally employed.

Porter took account of these three degrees of force, but goes further to an accounting for the kinds of force as well as the degree. In speaking of emphasis Porter says:

Emphasis is a distinctive utterance of words which are especially significant with such a degree and kind of stress, as conveys their meaning in the best manner.

And again:

The kind of stress is not less important to the sense than the degree. Let anyone glance his eye over the examples of the foregoing pages, and he will see that strong emphasis demands in all cases, an appropriate inflection; and that to change this inflection perverts the sense.

Other chapters of this study have attempted to show how force has been used by Rush and others as a factor in accent and emphasis. The business of this present chapter is to furnish what additional material Rush has written on force as a general element.

Rush has very little to say about force in reference to the constant loudness of the voice, but confines most of his description to its use in discriminating words and phrases. His observations on

10. Idem, 71.
11. Idem, 80.
the effects which the use of various degrees of force will create are listed below in an abridged form.

Secrecy muffles the voice . . . .

Certainty . . . assumes all the impressiveness of strength.

Anger in like manner uses force of voice.

Joy is loud in calling for companionship, through the overflowing charity of its satisfaction.

Bodily pain, fear and terror are also strong in their expression.12

The main contribution of Rush to the information on force is his classification of the six stresses. These are discussed in separate chapters, but are the various modes of the element, force. They are, therefore, presented here.

First, the radical stress:

. . . consists in the abrupt and forcible emission of the voice at the beginning of the concrete movement.13

In other words, when the attack of the syllable is stressed, but the force is reduced as the utterance of the radical vanish movement continues, the radical stress has been created. This is used particularly in careful articulation.14

Second is the median stress, which is somewhat equivalent to the musical swell. Neither the beginning nor the end of the syllable is stressed, but there is an increase in force during the radical-vanish movement. Since a complete radical and vanishing movement occupies

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the space of two notes, the median stress, being in that part of the movement in which the interval is traversed, is usually made on two different notes. Rush says this form of stress always augments whatever expression it accompanies. 15

The third type is the vanishing stress. This can be observed at the completion of the radical and vanishing movement, if the voice is stopped abruptly instead of letting the vanish fade-out the close of the syllable. This approaches the modern conception of the glottal stop. Rush says that this form of stress is prevalent among the natives of Ireland. He also gives the hiscough as an example of the way in which the sound is abruptly terminated. In any case, he says it has less dignity than other modes of stress.

Fourth, is the compound stress. 16 This Rush compares to the "shake" of music, which is the tremulous vibrato of a sustained note. He says it is the result of adding force to the radical and the vanish when the interval is small but the quantity of the syllable is long. This type of stress is to be avoided in almost every form of expression.

The fifth is the thorough stress. 17 This is the continued use of a louder force throughout the entire radical and vanishing movement. It is this which Rush uses to describe the general effect of loudness.

Lastly, Rush lists the loud concret.e. 18 This is apparently the type of applied force which creates the accent of syllables. When

15. Idem, 342.
extra force is applied to the concrete movement of voice just as a form of distinguishing one syllable from an adjacent one, then the loud concrete has been used.

Thus, in the course of this chapter, and others which have preceded, the various interpretations of the modes of force have been shown. As has been found to be the case in several other subjects, Rush has contributed a new terminology and a new classification and he should be accredited with originality in this respect. However, much of the general concept of force was part of various discussions before his time. It was left for Rush to add the clarification, arrangement and specificity.
Chapter 15

Of Emphasis

One of the reasons that emphasis has been left until the last chapter is because it involves so many of the other principles of voice, particularly that of force and inflection.

While discussing accent, several comments and quotations were made which showed the distinction between accent and emphasis. However, it would be well to examine again what is meant by the term.

Perhaps, since Walker is one of the most important authors on the subject, his definition should be first.

Emphasis, in the most usual sense of the word, is that stress with which certain words are pronounced, so as to be distinguished from the rest of the sentence. ¹

Walker complains of the lack of information available on the subject when he comments that,

... few [writers] have gone farther than to tell us, that we must place the emphasis on that word in reading, which we should make emphatical in speaking; and though the importance of emphasis is insisted on with the utmost force and elegance of language, no assistance is given us to determine which is the emphatic word where several appear equally emphatical, or have we any rule to distinguish between those words which have greater, and those which have lesser degree of stress; the sense of the author is the sole direction we are referred to, and all is left to the taste and understanding of the reader. ²

Sheridan says this:

Emphasis discharges in sentences, the same kind of office, that accent does in words. As accent, is the link which ties syllables together, and forms them into words; so emphasis, unites words together, and forms them into sentences,

¹ Walker, Elements (1781), II, 15.
² Idem, II, 16.
or members of sentences. As accent dignifies the syllable on which it is laid, and makes it more distinguished by the ear than the rest; so emphasis, ennobles the word to which it belongs, and presents it in a stronger light to the understanding. Accent is the mark which distinguishes words from each other, as simple types of our ideas, without reference to their agreement or disagreement: Emphasis, is the mark which points out their several degrees of relationship, and the rank which they hold in the mind. Accent addresses itself to the ear only; emphasis, thro' the ear, to the understanding.  

This is the same idea that Cookin presented several years after Sheridan's 1763 edition. Cookin said:

... emphasis is not a thing annexed to particular words, as accent is to syllables, but owes its rise chiefly to the meaning of a passage, and must therefore vary its seat according as that meaning varies ... .

Perhaps the earliest writer of this period to make a similar statement was Mason in 1748.

When we distinguish any particular Syllable in a word with a strong Voice, it is called Accent; when we thus distinguish any particular Word in a Sentence, it is called Emphasis; and the word so distinguished, the emphatical Word.

Porter makes a greater connection between emphasis and the other elements of expression than have these first quotations. He says:

Emphasis is governed by the laws of sentiment, being inseparably associated with thought and emotion. It is the most important principle, by which elocution is related to the operations of mind, hence when it stands opposed to the claims of custom or harmony, these always give way to its supremacy. The accent which custom attaches to a word, emphasis may supersede; as we have seen under the foregoing article. Custom requires a cadence at the final pause, but emphasis often turns the voice upward at the end of a sentence.

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6. Porter, Rhetorical Delivery, 70.
The last reference on the general interpretation of emphasis to be included here is from Enfield, who wrote in 1774, but whose 1817 edition was the one in Rush's possession. He says:

Emphasis points out the precise meaning of a sentence, shows in what manner one idea is connected with, and rises out of another, marks the several clauses of a sentence, gives to every part its proper sound, and thus conveys to the mind of the reader the full import of the whole. . . . It is another office of emphasis to express the opposition between the several parts of a sentence.7

It will be recalled that Rush did not confine emphasis to words and accent to syllables, but said that emphasis might occasionally occur on the syllables themselves when the sense of passage required it. With that exception Rush seems to employ the same idea of the office of emphasis as did other writers, even though he advances a broader interpretation of the means of achieving it. Rush says:

Emphasis may be defined to be the expressive but occasional distinction of the syllables of words, and consequently of the words themselves, by quantity, quality, each of the modes of stress and each of the modes of intonation.8

. . . emphasis is no more than a generic term, including the specific denominations of the particular uses of every accident of the voice: for it will be found that there is no audible effort of the voice which is not used as the symbol for emphatic thoughts and sentiments.9

What, then, is the means of achieving emphasis according to the various authors? Remembering for the moment that in general Rush says emphasis is not the result of any one element or mode of speaking, it will be of interest to examine the analysis of emphasis made by

9. Ibid., 374.
those who preceded Rush.

One of the outstanding classifications pertaining to this subject is that of dividing emphasis into two types, emphasis of force, and emphasis of sense. Several texts use these divisions. Perhaps it is the outgrowth of a similar order mentioned by Sheridan, probably in his original 1765 edition. He says that emphasis is of two kinds: simple and complex.

Simple when it serves only to point out the plain meaning of any proposition; complex, when beside the meaning, it marks also some affection or emotion of the mind; or gives a meaning to words, which they should not have in their usual acceptation, without such emphasis. . . . Simple emphasis belongs to the calm and composed understanding; complex, to the fancy and the passions. 10

The complex emphasis, Sheridan continues, requires changes in tone as well as stronger accent. He has made a distinction between the simple and complex, which, though not exactly the same as "emphasis of force" and "emphasis of sense," seems to possess much the same type of classification.

Cockin makes the association between the two classifications, for he adopts the idea of emphasis of sense, and emphasis of force, but gives reference in a footnote to Sheridan's terms. The footnote reads:

The first of these terms answers to the simple emphasis described in the Lectures on Elocution and the second nearly to what is there called Complex. The difference lies in this. Under complex emphasis the author seems (for he is far from being clear in this article) to include the tones simply considered of all the emotions of the mind; as well the tender and languid, as the forcible and exalting. Our term is intended to be confined to such modes of expression alone as

10. Sheridan, Lectures on Elocution, 84.
are marked with an apparent stress or increase of voice.\textsuperscript{11}

In other words, Cookin thinks that the simple emphasis, which is the effect of emphasizing words just for the sake of meaning, is similar in meaning to the emphasis of sense. Whereas, the emphasis of force, being emphasis by stress, is not quite the same as Sheridan's complex emphasis which involves the emotions.

Just what is meant by emphasis of force and emphasis of sense? Walker uses this classification, and then elaborates upon it. An explanation of his concept will disclose much of the opinion of the time. He says that in the Philosophical Enquiry into the Delivery of Written Language the following mention is made of these two types of emphasis.

Emphasis of force, is that stress we lay on almost every significant word; emphasis of sense, is that stress we lay on one or two particular words which distinguish them from all the rest in the sentence . . .\textsuperscript{12}

But he follows this with his own opinion:

This must be allowed to have thrown considerable light on the subject, and it is by the assistance which this author has given, that I shall endeavor to push my enquiries into emphasis still farther than he has done: I shall not only establish the distinction he has laid down, but attempt to draw a line between these two kinds of emphasis, so as to mark more precisely the boundaries of each. To this distinction of emphasis, I shall add another: I shall make a distinction of each into two kinds, according to the inflexion of voice they adopt; which, though of the utmost importance in conveying a just idea of emphasis, has never been noticed by any of our writers on the subject. This distinction of emphasis arises

\textsuperscript{11} Cookin, The Art, 40.

\textsuperscript{12} Walker, Elements (1781), II, 17. The writer has been unable to verify this quotation, but the distinction as developed in this reference is the same as that presented by Cookin, The Art, in his fifth and sixth chapters.
naturally from the observations already laid down, on the rising and falling inflexion.\textsuperscript{13}

At this point Rush injected an interesting comparison in his own copy of Walker (1810 edition). He says: "Emphasis of Sense is the emphasis of peculiar intonation."\textsuperscript{14}

In other words, Rush is pointing out here something which appears later in his own volumes, that it is the inflections of the voice which indicate the ideas of the mind. This is not to be interpreted as contradictory to his opinion that the emotional states of the mind are indicated not solely by the qualities, but rather by all of the elements of the voice. For Rush was apparently of the opinion that although emphasis of sense, or emphasis of idea, is mainly the work of the inflections, the discriminations which designate the feelings either as points of emphasis or as general passions, are the result of the reaction through all the elements of the voice. It might even be suggested that Rush comes close to implying that a "Gestalt response" is necessary in the expression of emphasis resulting from emotional states of the mind.

While explaining the expression of the verbal signs of the passions, Walker insists there is but little connection between quality and inflection. But in an explanation of emphasis he admits two particular kinds: emphasis of force and emphasis of inflection. This is Walker's elaboration on the "emphasis of force and sense" idea. One of the few places in Walker's entire text where Rush seems to be in

\textsuperscript{13} Idem, II, 19.

\textsuperscript{14} Rush's marginal notation in his personal copy of Walker, 194.
agreement is in this classification of force and inflection. Rush
inscribed heartily, "True! True!" in endorsing the idea that these
two elements worked together. But obviously the difference between
Walker and Rush is in the latter's inclusion in his description of
emphasis all the other elements as well as force and inflection.

Walker then proceeds to analyze at great length all types of
sentences in an effort to show all the possible variations of emphasis.
Typical of his type of description of emphasis are the three quotations
below.

The emphasis with the rising inflexion is to be
placed on those words, which, though in contradistinction
to something else, do not absolutely exclude its existence.15

All emphasis has an antithesis either expressed or
understood; if the emphasis excludes the antithesis, the
emphatic word had the falling inflexion; if the emphasis does
not exclude the antithesis, the emphatic word has the rising
inflexion.16

The falling inflexion affirms something in the
emphasis, and denies what is opposed to it in the antithesis;
while the emphasis with the rising inflexion affirms something
in the emphasis, without denying what is opposed to it in the
antithesis.17

There seems to be an essential difference between Porter and
Walker in the matter of emphasis. As is noted above, Walker bases
most of his directions upon the concept that all sentences determine
the emphasis by the grammatical construction. An emphasis implies
a contradistinction between the one part of a sentence and another,
and therefore the whole matter can be organized on that basis. But

15. Walker, Elements (1781), II, 52.
17. Idem, 54.
Porter, although accepting much of Walker, says:

These illustrations show that the principle of emphatic stress is perfectly simple; and that it falls on a particular word, not chiefly because that word belongs to one or another class in grammar, but because, in the present case, it is important in sense.\(^\text{18}\)

Thus Porter somewhat bridges the gap from Walker to Rush.

Chapman combines the language of Steele with the concept of Walker to list the following varieties of Emphasis:

Under the general term Emphasis or Thesis, the five following varieties are:

1. The Thesis or heavy syllable, constantly alternate with the light.
2. The additional percussion given to the heavy syllable, called emphasis of force.
3. The percussion given to the heavy syllable, called emphasis of sense, when the antithesis is expressed, and not denied.
4. The force given to the emphasis of sense, when the antithesis is expressed and denied.
5. In the last place, the highest degree of emphatic force, is that which is given to the emphatic word, when it affirms something in the emphasis, and denies what is opposed to it in the antithesis, while the antithesis is not expressed but understood.\(^\text{19}\)

The nature of emphasis as understood by musicians, rhetoricians, and grammarians before Rush has thus been reviewed. There is very little more that Rush contributes to the concept. His organization of emphatic elements follows the plan of his entire analysis. What has been new in his vocal analysis is present also in his description of emphasis. His main idea, which is apparently of his own invention,
is that emphasis depends not on force alone, nor upon force and inflection alone, but upon every possible means of vocal expression. A resume of his description of emphasis almost makes a summary of his descriptive analysis of voice.

Rush's treatment of emphasis is practically the same throughout all editions with the exception of his having added in the fourth edition two sub-sections: one on the emphasis of quality, and the other on the emphasis of force. With these additions his classification includes the following kinds of emphasis:

- Emphasis of Quality
- Emphasis of Force
- Radical Emphasis
- Median Emphasis
- Vanishing Emphasis
- Compound Emphasis
- Emphasis of Thorough Stress and Loud Concrete
- Aspirate Emphasis
- Emphatic Voicule
- Guttural Emphasis
- Emphasis of Pitch

From Rush's own "Recapitulation of Emphasis," the following additional information is gleaned.

The types of vocal sound that create the greatest attention and consequently the greatest amount of emphasis are: great stress, extreme length of syllables, wide intervals of pitch, peculiar quality of voice. In the first edition Rush includes the statement that qualities of voice create emphasis, but he did not make a separate issue of that until later. It is to be noted that this list of factors creating emphasis is again nothing but a restatement of the

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elements, but in each case he recommends they be used in their extreme form.

In Rush's explanation of the general purposes of emphasis he does not list any particular use that has not already been represented by other authors as quoted above. Those functions he mentions are:

1. To raise one or more words above the level of the rest of the sentence.

2. To contrast certain words with each other.

3. To substitute for ellipsis, and thereby complete to the ear constructions which would otherwise be imperfect in grammar. (This is not quoted above, but is included in Walker's grammatical analysis).

4. To mark the syntax in those cases where it might be doubtful without the assistance of emphasis. 22

Once again, then, it has been shown that although Rush contributes an entirely original approach to a subject in certain particulars, he is not to be accredited with originality for the entire concept. In this chapter it has been pointed out that much Rush says about emphasis was common knowledge at the time of his publication. However, he enlarged upon the concept, gave it a broader scope, and a more tangible design.

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22. _Idem_, 411; also Fifth Edition (1869), 458.
PART V

SUMMARY AND CONCLUSION
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SUMMARY AND CONCLUSION

At the end of Chapter One in Part One, two questions were asked. It is believed that the evidence of Parts Two, Three and Four is sufficient to substantiate the following answers.

It was asked: What were Rush's reactions to previous studies on voice? There are three answers to this question:

First, Rush thought almost all previous work to be based on insufficient observation of nature, unscientific research, and careless application of sketchy principles.

Second, Rush was ready to accept any principle projected by a writer when, in his judgment, it seemed to be sound.

Third, Rush felt that, while many writers gave reasonably good treatment to some phases of vocal expression, none collected accurate information on enough aspects to make their work valuable as a text.

The next question asked how Rush's analysis might be re-evaluated in the light of his sources to show three things: what his basic philosophy was; what his original contributions were; and, what concepts presented by Rush existed prior to his first publication and how did he modify them to fit his own philosophy?

His basic philosophy involved four major considerations:

First, Rush's description of the vocal aspects of expression is the result of physiological inquiry rather than
an effort to dispute with grammarians and rhetoricians.

Second, Rush's description of the physiology of the voice was the outgrowth of a research which attempted to describe the physiology of the mind.

Third, his system of elements furnishes a complete schedule for the improvement of the powers of observation of nature and of the general capacity of the voice, without attempting to prescribe rules for the use of a special mode of expression.

Fourth, Rush attempted to prove that, contrary to popular opinion, it was possible to analyze systematically not only vocal expression but all mental functions.

His major original contributions to the study of speech are those concepts which are associated with the radical and vanishing movement. He should be accredited with originality most particularly in his treatment of nomenclature, syllabication, alphabetic elements, and the specific intervals of inflection. However, there are other minor points of originality in Rush's text which cannot easily be isolated from his adaptation of existing concepts, but these are usually new in their approach to the subject rather than in the basic idea involved.

Finally, the second question asked what concepts presented by Rush existed prior to his first publication. The following factors had been included in discussions by writers before 1827 and consequently cannot be considered original with Rush: accent, quantity, rhythm, cadence, pause, pitch and inflection, quality, force, and
emphasis. These factors were presented in scattered places throughout many books however, and Rush developed each concept, and brought them together into a text which can be considered the most complete analysis of all the known elements and fundamentals of vocal expression ever published up to his time. Continual use of the material of this analysis has so completely identified the concepts with Rush, that many of the ideas which seem to be of his invention should be more accurately recognised as collected by him. The very fact that his standardization and arrangement of these factors was done with such clarity, comprehension and precision has made the Philosophy of the Human Voice a more basic reference than any other in print during that era.
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APPENDIX

UNPUBLISHED MATERIAL

A. To the Reader.

B. Excerpts of Letters.
APPENDIX A

To the Reader*

The first edition of The Philosophy of the Human Voice, published in January, 1827, and consisting of 500 copies, was all sold by August, 1832. Mr. Small who sold the first was willing to publish the second edition; and offered me ten cents a copy, which would have been one hundred dollars for an edition of a thousand. The book seller wished me, if I accepted his offer, to set immediately about reprinting, that it might be ready for what they call the Fall "Trade-sales," which is a meeting of book-sellers from all parts of the Union for the purpose of exchange of their respective stocks; and which meeting was to be held in the latter part of September; this allowing me a little over a month to reprint a work of nearly 600 octavo pages; ... Now this might have suited the marketing hurry of a book-seller; but not the obligatory duty of an Author ... Dr. Rush declined the book-seller's suggestion of a hurried reprinting but worked on the next edition occasionally until it was ready for the press at the beginning of June, 1833. Because he did not wish to do further business with Mr. Small, he took his work to Grigg and Elliott.

Grigg was civil to me, which I cannot say of that Principal Book-seller with the first edition. But he civilly gave me to understand, that in bringing an American copy-right, I came with a very, very poor article ... But he knew the unexpected success of the first edition under the many disadvantages, -- of its being subject for a very few readers: - of its being laughed at or being altogether overlooked by the learned: - of its wanting the patronage of the trade, by being published by the Author himself, who put it into the hands of an agent to sell, ... of its high price at three dollars and fifty cents: - of its being sold by this agent whose ability at that time, in 'getting off' as they call it, such an unpopular work as mine, may be justly conceived, when it was the saying among the Trade, that 'giving a book to Small to publish would be sufficient to insure its failure.'

Knowing all of these things, Grigg said he would consider the matter. He did so and offered me one hundred and fifty

*Found in the Printer's Copy of the Second Edition of the Philosophy of the Human Voice, as a section Rush had written for that edition. It was apparently left out of all subsequent printings, including the edition for which it was written. The section was in his own handwriting, some of which could not be accurately deciphered. Consequently, these excerpts are printed in a somewhat edited form.
dollars for an edition of twelve hundred and fifty copies. I at
once accepted the paltry sum and submitted thankfully to the
bare-faced imposition . . .

For the new, and the substituted wood cuts, which I
added to the second edition, I paid ten dollars: thus making one
hundred and forty dollars the reward of my literary labor and
authorship; a sum, that, if money were the object of my pursuit, I
should have considered niggardly payment for the trouble of cor-
recting the press. — For I may safely say that now, six years
after its first publication, there could not have been found a
single scholar in the city of Philadelphia able to correct it.
He would have been obliged to learn it first, to be confident of
its meaning.

This last remark brings me to speak of the reception this
work has met with, up to the period of publishing this second
edition. When the work first appeared in 1827, there was some stir
of curiosity in the city to see it; my enemies to catch me in error
or folly; and my friends to find grounds for their favorable opinion
of me. But the latter were few; for when the work was found to be
difficult of comprehension, mainly because the general character
of American education was not equal to it, then the public, and
not a few of my, so-called, friends too, began to make their defense
against the self inflicted charge of ignorance; or the want of
industry, by saying that the work was useless.

The first person who read it, and the first who understood
it was Dr. Jonathan Barber, an Englishman, who about this time
came to Philadelphia, and taught elocution. He gave it a hasty
reading in about eight and forty hours, and even in this transient
view saw the science and meaning of the whole by learning the
gamma, which till then he had no idea of, and with explanation
from me, he did, in three weeks from its publication, deliver at
the Musical Fund Hall in this city, the first course of lectures
that were ever given, in illustration of the nature and uses of
the work. These lectures were not attended by a single individual
of our scientific and literary classes, nor by any of the wealthy
or fashionable. The audience consisted of a few teachers of both
sexes, and of the humblest order, some mechanics, an insignificant
young lawyer or two, one or more parsons, and a good many Quakers,
male and female, whose education being of the plainer kind, gives
them but a sorry standing among the vanities of Philadelphia
Literature.

I consider Dr. Barber the maker of the present fortune of
the Philosophy of the Human Voice. Without him, not an American
would have understood it. All would therefore have treated it as
if it were in itself, and not in their minds, unintelligible; and
consequently, beneath attention. And I in all probability would
have had too much contempt for their ignorance and ill-will to have
taken the trouble myself to endeavor to help the one or to change
the other. The work would probably have died for the time; the few
copies of the first edition not being sufficient to ensure its
preservation. The only thing that might perhaps have remained
would have been merely a transient record in an enduring copy of our present multiplied ephemerals, that such a work on the analysis of the voice had once been written.

The second person who properly understood and advocated the Philosophy of the Human Voice was Samuel Gummere, one of the Principals of a celebrated school in Burlington, New Jersey, an excellent and an intelligent man of about ___ years (sic) of age. To him the early progress of the analytic system of Elocution is under many obligations. In the Fall of 1827 he introduced it into his schools, and in 1831 he delivered a short course of public lectures in the Franklin Institute, by coming twice a week to the city for that purpose.

The third who adopted and taught the principles of this work, was Dr. John Barber, a younger brother of Jonathan Barber, of ___ years (sic) of age. He gave lectures and private instruction in the city of New York and in several parts of the state; likewise in New Jersey; and in West Chester, Penn., where for a time he kept a boarding school. When there he was invited to give a course of lectures on the subject of Elocution, at the Reading Rooms of Southmark, and at the Northern Liberties, and did give them in the former place. This was in the year 1832.

The fourth was a Mr. Dennison, an Irishman and a teacher in Philadelphia. He caught a few of the principles of the work, and taught them in his school, but his habits of intemperance destroyed those powers of mind, which were necessary for the full understanding and application of the analysis, and he died in 1830 aged about 27 years.

The fifth patron of the work was Dr. Andrew Comstock, a physician from ___ who had established himself as a teacher of Elocution in Philadelphia. He took my work at ___ years of age. He is acquainted with the science of Music, and in a degree with the practice. He published in ___ a work called Practical Elocution, in which he introduced some of the principles and analyses of the Philosophy of the Human Voice, the system of which he understands. He teaches private classes . . .

The sixth was William Bryant a clergyman of the Episcopal Church and a native of New Jersey. He was at first a cabinet maker, - and afterwards taught vocal music, and finally studied Divinity, was admitted to the humble and needed places of the church, and kept a school for children in Philadelphia. Yet both church and school gave but a limited support to his large family. He had in youth small means of education, yet did much for himself by industry. He was fifty years of age when he accidentally met with the Philosophy of the Human Voice three years after it was published. It was shown to him, upon his speaking of the difficulties of the 'art of reading' -- by Dr. Delany, provost of the University of Pennsylvania, who said in handing it to him, 'here is a work that may perhaps answer your purpose, but I can make nothing of it.' He lent him the volume. Bryant at once saw its meaning, which the great Provost could not; and that it was what
the art wanted no less than himself. He came to me then, modestly to inquire, if at his age, and with his disadvantages in education, he could master the work, and if so, in what time. Being told that with his knowledge of the musical scale, and with his disposable time, he might in eighteen months, so acquire the whole, as to enable him to teach it, he at once began and in less than the allowed period, obtained a sufficient knowledge of its principles to enable him to think of teaching it. In the year 1832 he began to instruct the children of his school, in the elementary parts; and in 1833, first taught a class of eight adults, all of the Society of Friends.

These are the persons, who between the publication of the first and second editions, adopted the system of this work. I have heard of others in New York, and in other places, who are said to have taken it up. But the reports were not specific enough to enable me to ascertain how far, in those cases, the system was understood. Those I have spoken of were personally known to me, and through frequent intercourse I had the means of ascertaining the degree of their knowledge. None of them came up to my idea of a full and accomplished teacher. But by the aid of the principles which this work affords, they were most of them, qualified, when the capacity existed, to make their pupils better readers than themselves; for that is one of the high powers of a scientific mode of instruction in every art, -- and all of them were competent to diffuse a curiosity for this new analytical mode of elocution; and thus to begin the great work of its introduction to the circle of exact and elegant knowledge. . . .

Rush continued by stating the opinions of the various other people of his system of elocution. The most important of these was that of the President of the Philosophical Society.

The president of the Philosophical Society, not only denied that I had reduced the mode of speech to a definite method, - but going beyond me, pronounced that it could never be done. . . .

He then comments on people to whom he had given copies of his book.

One was sent to Dugald Stewart, and one to the Rev. Francis Wrangham, the translator of Plutarch. I sent the work severally to Mrs. Siddons; to John G. Lockhart, son-in-law to Sir Walter Scott, and Editor of the London Quarterly Review; to the Rev. Mr. Chapman, teacher of elocution in Edinburgh; Mrs. Grant of Laggan, the Scotch Authoress; Dr. Busby, the musical composer and writer; Charles Bell, the anatomist, surgeon, and writer on the physiology of the expression of the human countenance -- and to Sir Humphrey Davy; besides to other acquaintances and friends. . . .

. . . I have given the history of the first advocates, of the Analytic System of Elocution, and of the early enmity or indifference towards it, in order to set down some notable conclusions here. --
In the first place, then, it seems to be almost a miracle that at the moment I was ready to publish a work, altogether new, on the uses of the speaking voice which nobody perhaps in this country could have been able to understand, or practically apply; - it seems I say to be almost a miraculous coincidence that an English elocutionist should have come to Philadelphia - that he should have possessed the philosophical and literary education to comprehend at once the design of the work, and the candor to adopt it, - To acknowledge, as he did, that he had known nothing of the art of reading before, - and to be willing to begin anew in the fortieth year of his age, - and finally, to resist all the artifices that were used to prejudice him against me, and to withdraw him from my acquaintance by the first scientific characters of this city, after they had discovered he had become the eulogist and advocate of my yet unpublished book.

Secondly, it is to be remarked - that the six first advocates of the system were personally unknown to me, before the subject of the Philosophy of the Human Voice brought us together. Not a companion or friend of my youth, nor of after life, nor any former acquaintance gave me the least help or countenance in the work, further than to repeat occasionally the favorable things that strangers said of it.

Thirdly, That not one of the six were natives of Philadelphia; and no Philadelphian has even yet, as far as I know, formally engaged himself in teaching it.

Fourthly, That the whole six were of that class of persons whom the Aristocracy of learning are careful to pass on the other side, and whom the wise men of Science and Literature in this city hold to be so utterly insignificant as to be entitled to neither civility nor justice. Thence when they began to persecute Dr. Barber, it was with that sort of feeling, with which one kills a bed-bug or kicks a troublesome dog out-of-doors. Though I here frankly acknowledge that during my two years acquaintance and conversation with this gentleman, I received more benefits of knowledge and taste, than I have all my life from the 'best company' as 'tis called, of Philadelphia. . . .

Fifthly, - That all who became the pupils of these teachers, were of the humble rank of learners, and of the commonest schools. The most of them were Quakers, a Christian sect rather despised on the score of education. None of the aspiring blood of Politics, Learning, or Taste ever looked into the subject; . . . I do not here allude with contempt to their not understanding its detail or not being able to apply it. Men of education, may even the ignorant, know well the meaning and uses of the Science of Navigation, though they may be entirely ignorant of all the particulars and method of the art which it includes and governs. . . .

Sixthly, That with all the quiet opposition of the learned, the whole tenor of the public opinion, caught from its first six advocates, has been in favor of the work. There have been from
its very first publication, membership commendations in the various Prints of the day; but I have never yet seen any against it.

Seventhly-- That in many parts of the United States, it has been well received, and wherever heard, has been at least tolerated.

Rush then makes it clear that the six advocates of his work were not by any means musical geniuses, but they were able to understand and learn his musical analysis very rapidly.

... On the subject of the supposed necessity of a person's being a musician in order to understand this work, it is worth noting that to this day I do not know and have not heard of a single professional musician, whether vocal or instrumental, who has ever understood a word of it, or seen its analogy with the system of his own art.
APPENDIX B

Excerpts of Letters

The following letter was written to Rush by Thomas McKenney:

Boston, Sep't. 29/43

My Dear Doctor:

I write in a book store, on Washington St., and I write in haste. . . .

Your book on the Human Voice you must do one of two things with: When I say must -- I mean, of course, -- if you please. First -- you must republish it; or assign the right to do so, with all its accruing benefits to Mr. Murdoch, and myself. Take your choice.

Mr. Murdoch will hand you this; and will explain every thing -- and to a man of your notions, he will make you feel that "Rush on the Human Voice" -- is the very soul of all that has been written--spoken--or sung on that subject.

With the right to do so, Murdoch and myself will manufacture for you, a monument out of this emanation from your brain, that will stand, in all times, beside that, which is to be seen everywhere--upon all our rivers, and upon the ocean, sea and even upon the land, having inscribed upon it the name of Fulton. . . . Fulton's genius gave immortality to his fame, in regard to one; and Rush -- properly brought out and applied, will impart it to the other . . .

. . . I am your friend in haste

Thomas McKenney.

Here are some excerpts from a letter written in 1855 from Lancaster by Mr. Russell to Dr. James Rush:

. . . Some of my young teachers have been very successful, within the last few years, in introducing scientific elocution into the region of New York in those large academic establishments where the students number from 400 to 600. These young men are all well grounded on a careful study of the Philosophy of the Voice. One has just entered college at Schenectady where he is to be instructor in elocution. Another is now closing his senior year at Amherst College, where he has held successfully the same office privately. Many others of the same stamp are scattered over the Union doing similar work. One holds high rank in San Francisco. The Yankee argument,
oui bono (to the purse) is not wanting to these young men's experience. Their incomes range from $800 to $3000 a year.

Mr. Russell comments further on his publishing a teachers' book, *Exercises on Words*, which his past class has requested him to publish. He mentions that he is sending Rush in this same mail a copy of his circular of his last seminary.

In his next letter Mr. Russell tells of his own position in Massachusetts State Teachers Institute and mentions that Cambridge, Yale, Amherst, Brown, Middlebury, and Bowdoin had endorsed Rush.

He also states that two of his daughters who are teaching elocution in the State Normal of Pennsylvania and in the Female Collegiate Institute at Worcester were following Rush in their instruction.

There are many other letters of speech interest in the correspondence of Dr. James Rush, but these two seem most pertinent to this study.
BIOGRAPHY

Lester Leonard Hale was born at Rice Lake, Wisconsin, on July 6, 1915. He attended elementary and secondary schools in Kaukauna, Madison, and Sturgeon Bay, Wisconsin, and was graduated from the Sturgeon Bay High School. His undergraduate work was done at the University of Wisconsin, where he received his A. B. degree in June, 1934. Beginning in the summer of 1934, he attended Louisiana State University as a fellow in the Department of Speech, and received his Master's degree from that institution in the spring of 1935. He accepted a position as Instructor in Speech at the University of Florida the following fall. After teaching there four years, he returned to Louisiana State University in September of 1939 on a fellowship in the Department of Speech. By the end of the 1940-41 regular session he had completed all of the requirements for the degree of Doctor of Philosophy in Speech with the exception of the dissertation. The summer of 1941 he was employed as Graduate Assistant in Speech at Louisiana State University, being in temporary charge of the Speech Correction Clinic. After he had returned to the University of Florida as an Assistant Professor of Speech for the regular session 1941-42, the last requirements for the degree were completed for the convocation in June of 1942.
EXAMINATION AND THESIS REPORT

Candidate: HaLe, Lester L.

Major Field: Speech

Title of Thesis: A Re-Evaluation of the Vocal Philosophy of Dr. James Rush, as Based on a Study of His Sources

Approved:

[Signature]
Major Professor and Chairman

[Signature]
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination: May 12, 1942