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Establishing human identity through randomly-generated lyrics: A comprehensive performer's analysis of Robert Paterson's CAPTCHA and its performance

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‘ESTABLISHING HUMAN IDENTITY THROUGH RANDOMLY GENERATED LYRICS’:
A Comprehensive Performer’s Analysis of Robert Paterson’s *CAPTCHA* and
Its Performance

Kyle Daniel Yampiro

A Research Project submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

for the degree of

Doctor of Musical Arts

School of Music

May 2016

FACULTY COMMITTEE:

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Dedication

This thesis is dedicated to my mentor from my undergraduate studies at the University of Delaware, Dr. Blake Smith, who challenged me to a game of Words With Friends to test my wits upon hearing I was going to pursue a Doctoral degree. I may have lost that game, but I've come a long way since then.

Acknowledgments

Throughout the course of my work on this project, many friends gave their valuable time to listen to me run through various trains of thought; to each one of them, I am eternally grateful. To my family and friends who helped me continue through this process: thank you all. In particular, special thanks belong to Dr. Dennis C. Beck, Brian Cockburn, Dr. Kirk O’Riordan, Megan Ihnen, and David Newman for generously giving their time to help me in the genesis of this thesis.

None of this would have been possible if not for the opportunities given to me by the James Madison University School of Music, School of Theatre & Dance, and Graduate School. The shows I have performed in and attended here for the greater part of the last decade have been fundamental to my development as a performer and a scholar.

The professionals who were able to take time out of their lives to contribute specific information to this project deserve immeasurable thanks: baritones Jesse Blumberg and Dr. Daniel Ihasz, and the composer of the piece, Dr. Robert Paterson.

I would have no performance experience with *CAPTCHA* if not for my collaboration with the incomparable Megan Colleen Rainey, whose attention to detail, sheer ability, positivity, and professionalism are unparalleled.

Lastly, I would like to thank my committee, whose unique skill set has helped me immensely and whose direction and support have been critical throughout this process: Prof. Kevin McMillan, document director, and committee members Dr. Jo-Anne van der Vat-Chromy, Dr. Jason Haney, and Prof. Ben Lambert.

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Abstract

Robert Paterson's *CAPTCHA* is a five-song cycle for baritone and piano that comes with some unique challenges from an interpretive standpoint. The text is comprised of CAPTCHAs: two-word phrases originally designed to test human identity versus that of a computer. Nearly every phrase contains a gibberish word and a real word and there is no proper syntax. The composer leaves interpretation open to the performer, which prompts the primary question explored in this document: how can a singer create an effective performance of this piece, given its unique challenges?

This document takes a multidisciplinary approach to discover the range of possibilities without prescribing one "correct" answer. A review of literature explores various genres that draw parallels to *CAPTCHA*, including concert vocalises, other songs utilizing mundane texts for lyrics, and three specific texts which combine real and gibberish words: "Jabberwocky" by Lewis Carroll, *Nuvoletta* by James Joyce (set by Samuel Barber), and *Cinq Rechants* by Olivier Messiaen. More perspectives are considered through results of interviews with composer Robert Paterson and the first two baritones to perform the cycle in its entirety, Jesse Blumberg and Daniel Ihasz. A practical analysis of the cycle is designed to give prospective performers a wide range of elements to consider when building an interpretation. Multiple performance strategies are presented for their possible application to the piece, including Kristin Linklater and phonetic-based training for pronunciation, Konstantin Stanislavski's System for realistic acting, and the modernist theatre of Bertolt Brecht. Finally, the author synthesizes the various findings and produces strategies for interpretation in which the music and the character of the text itself may provide a basis for exploration. The study concludes with a brief outline of benefits to studying a piece without straightforward text and areas for further research.

PART I: Consideration of Source Material

Chapter 1. Introduction and Overview

When preparing a piece for performance, musicians utilize all information available to them in order to form their own interpretation. Vocal performers consider text and apply its meaning to the music for emotional connection. This directly affects the singer's tone quality and results in a more cohesive product. A singer who does not consider the translation of text in a foreign language will have great difficulty in producing a quality performance because of the disconnect between music and text. But what if the text does not provide the standard information necessary for a singer's performance?

Robert Paterson's *CAPTCHA* is a conventional five-song cycle for baritone and piano with one caveat: the text is comprised of two-word CAPTCHA phrases, nearly all of which contain one real word and one gibberish word. Developed in 2000 by Carnegie Mellon student Luis von Ahn and his advisor, CAPTCHA stands for *Completely Automated Public Turing test to tell Computers and Humans Apart* and challenges users to transcribe text from a distorted image to prove their identity, which a computer cannot do, for security. The resultant phrases are typically nonsensical and often contain gibberish words with no extant meaning. Paterson arranged found texts from a free application called reCAPTCHA, CAPTCHA's successor, and set them to music.

The challenge of performing text with no extant meaning, given pronunciation, or defined language of origin is great enough. But presenting those words with known English words in two-word phrases without proper syntax creates an entire world of possibilities. Paterson intentionally does not provide much information about his interpretation so that the performers can devise their own. He provides a few possible strategies for forming an interpretation in the piece's program notes and performance notes. Paterson writes: "Each

movement (or section) could sound like it is being sung in a different language (German, Italian, Spanish, etc.), an alien language from another planet, a language from the future, or some or all of the above. In an [sic] dramatic sense, each movement may portray an entirely different character. The goal of the work is to make people feel emotional, regardless of whether the words make literal sense or not.”¹ Even with that understanding, with such a wide range of possibilities, prospective performers are presented with far more questions than answers.

Methodology and Structure

This study examines Robert Paterson’s *CAPTCHA* in multiple ways to provide a broad range of strategies for interpretation by the singer despite the unintelligible text. The piece itself will be analyzed in detail from both musical and textual perspectives. Because this cycle is so new in relation to this document, earlier pieces of music and literature that have been analyzed previously will be presented for comparison. Specific attention will be given to pieces that decontextualize language by using both a real language and a nonexistent one. After studying *CAPTCHA* and similar pieces, selected performance strategies will be studied for their application to the piece. A synthesis of the various musical and theatrical perspectives will be presented. The Doctor of Musical Arts Document will conclude with pedagogical considerations, further exercises, and avenues for future research.

The Doctor of Musical Arts Document is divided into two main sections. Part One includes an introduction, an overview of sources considered for comparison, interviews with the composer and performers he worked closely with around the time of piece’s premiere, and a practical theoretical analysis. Part Two provides a survey of performance theories as

¹ Robert Paterson, *CAPTCHA* (New York: Bill Holab Music, 2013), Performance Notes.

they may be applied to the cycle, the author's conjecture in consideration of all sources, and a conclusion that discusses the pedagogical benefits of studying *CAPTCHA* as well as an identification of areas for future research.

This project is designed to outline effective strategies for performance *without* imposing bias. No "correct" interpretation will be suggested, since one of the most intriguing elements of *CAPTCHA* is the large sphere of plausibility left open as a result of its text. The various findings and conclusions throughout this study will be presented based on their potential for consideration by a prospective performer of *CAPTCHA* and will hopefully provide him with numerous strategies to utilize throughout his discovery process and, ultimately, his performance.

Chapter 2. Review of Literature and Interviews

To draw comparisons from other works and apply them to *CAPTCHA*, the scope through which to look must be defined. In the 21st century, it is commonplace to compose vocal music set to what is called non-traditional text, to the point at which the definition of “traditional” is in question. There are very many compositions not used as examples in this paper due to major differences in musical style or the manner in which language is used. *CAPTCHA* texts come from a mundane source and are comprised of both known words and gibberish words, presenting phrases without proper syntax in a known language, combining the meaningful with the inherently meaningless. These texts set to music are presented in a fairly traditional way, to be sung within a reasonable baritone range. These elements are unique to *CAPTCHA*, and while some genres selected for comparison here have elements of similarity, others are far too different to be considered. Among the works selected for comparison are concert vocalises which feature vocal performance with no extant text, texts by Lewis Carroll and James Joyce which use language with unintelligible text, and *Cinq Rechants* by Olivier Messiaen. The latter is a 12-voice choral piece whose texts are a mixture of French and a language without a specific translation created by the composer.

Review of Literature

The world of texts providing jumbled language is a rich source of interpretive potential for singers. By studying a selection of *CAPTCHA*'s precursors, it is possible to gather some strategies for interpretation based on scholars' work and make links between the poetry of great writers of the past and *CAPTCHA*, whose transcendence is based on effective conceptualization and arrangement of words and music by Paterson.

Since the mid-20th century, a growing number of composers have been writing pieces which utilize extended techniques for voices and instruments in addition to using text in a non-traditional way, and in these pieces, the two concepts are inseparable.² Such aural elements in conjunction with the fact that many of them deconstruct language in an extreme way place them well outside of the scope of this paper.

On the other end of the spectrum from ‘extended techniques’ pieces lies the concert vocalise, in which a piece of music is performed on open vowels without text, reminiscent of a vocal exercise. Many composers have set them, including Maurice Ravel, Jacques Ibert, Sergei Rachmaninoff. Concert vocalises may be assigned as repertoire and performed on a recital for many beneficial purposes including freedom of interpretation. Because there is no intelligible text, the vocalist is tasked with producing an expressive interpretation without it. In this way, there is an inherent similarity between this genre and *CAPTCHA*. On some of the qualities of concert vocalises and benefits of performing them, Larry Stickler writes, “Since contemporary composers often use no tonal center, use disjunct intervals, write in a severe range, or often seemingly treat the vocal part as an instrumental part, the concert vocalises serve to teach the necessary vocal skills needed to perform contemporary music.”³ In concert with Stickler, Kathryn Chilcote writes, “Aside from the vocal agility demanded in interpreting virtuosic pieces, there is the additional problem of the music being abstract, totally dependent on vowel colors and musical phrasing. Words, or consonants more specifically, help to direct singers in creating phrases and shapes. In the absence of text, singers face demands similar to

² Istvan Anhalt, *Alternative Voices: Essays on Contemporary Vocal and Choral Composition* (Toronto: University of Toronto Press, 1984), 4-7.

³ Larry Wayne Stickler, “Concert Vocalises for Solo Voice: A Selective Study” (D.Mus diss., Indiana University, 1989), 7.

those that are placed upon instrumentalists.”⁴ Both scholars identify that there is a similarity in task between the concert vocalise and a piece of instrumental music. The major difference is the theatricality inherent in a vocal performance; because a standard piece of vocal repertoire has a theatrical basis and text as a means of communication, it is expected that a piece of vocal music attempts this.

The concert vocalise, theoretically, should be no exception. There is no extant text, but that does not mean the vocalist cannot infuse emotion into the various phrases or attempt to communicate something specific in each one. Unfortunately, in most writings on the concert vocalise, this element of performance is largely an afterthought, with the focus being on singing. Chilcote goes only so far as to tangentially mention acting as necessary because of the demands placed on singers by composers after World War II and their complex music. She poses the potential for further vocal exploration when saying, “The absence of text provides the singer with a number of vowel and consonant combinations, allowing the vocalise to be an evolving vehicle for interpretation and vocal technique.”⁵ Stickler, also strictly focused on the *vocal* challenges in presenting concert vocalises, writes, “These vocalises can provide an introduction to the style of a specific composer. Another advantage is that it allows concentration on vocal technique rather than the pronunciation of words or the interpretation of the text.”⁶ The implication made here is that a singer need not be burdened with interpretation because text is not present, whereas this cannot be further from the truth as we analyze *CAPTCHA*.

⁴ Kathryn Susan Chilcote, “The vocalise art song” (D.M.A. diss., University of Oregon, 1991), 6-7.

⁵ *Ibid.*, 210-11, 217.

⁶ Stickler, 52.

The major inherent difference between the concert vocalise and *CAPTCHA* is that there are no words in the former, intelligible or otherwise, whereas the latter was composed after texts had been gathered. The task for performing them may still be the same: for example, when applying realistic acting to both, the strategy would be to assess the quality of music in a given section and infuse the vocal line with the appropriate emotion and tone in order to communicate a thought or idea in the absence of intelligible text. *CAPTCHA* employs a wider variety of given vowels and consonants while doing so in its unintelligible portions, but the premise of preparing those sections is the same at its core.

CAPTCHA's text does make use of words that have meaning, setting it apart from those that *only* employ nonsensical text or portions of real words. *CAPTCHA* is not poetry; its texts transcend their original purpose. There is a wide range of works in the repertory that accomplish this, including Gabriel Kahane's *Craigslistlieder* and its texts derived from the classifieds website, Craigslist. Celius Dougherty's *Love in the Dictionary*, drawing its text from the definition of "love" in the dictionary, is perhaps an even more interesting example of evolving text's original purpose. Because a dictionary definition is written to be an exact meaning without bias or personal expression, a piece of music ~~as~~ performed by an expressive singer is in direct opposition to its source material's original purpose. *CAPTCHA* is no longer presented as a Turing test to tell humans and computers apart, transcending its original purpose. However, that is where the similarities between these pieces of repertoire end, since it is impossible to draw a fruitful comparison to *CAPTCHA* without some nonsensical language.

In an effort to draw comparisons with *CAPTCHA*, it is necessary to explore examples that employ a combination of real and nonexistent languages. For example, text-sound art or sound poetry, in which syllables are utilized to create a particular soundscape, has definitive

ties to what is attempted in *CAPTCHA*. In an article on text-sound art, Richard Kostelanetz makes some points regarding unfamiliar and perhaps nonexistent languages presented in the poetry. For example, he writes, “Such words need not be ‘translated,’ because the acoustic experience of them is ideally as comprehensible to one culture as to another.”⁷ He also notes the differences between sound poetry and song, placing text-sound art in the middle of a spectrum with music on one side and read poetry on the other. As another parallel, he writes, “Though superficially playful, text-sound art embodies serious thinking about the possibilities of vocal expression and communication; it represents not a substitute for language but an expansion of our verbal powers.”⁸ A further look into the precursors of sound poetry will help to identify more sources in literature with similar challenges to those presented in *CAPTCHA*.

To focus on the interpretation of *CAPTCHA* in particular, I have assembled a few key writers and their works from which to draw worthwhile comparisons, which unfortunately comes at the exclusion of others. The poetry of Gertrude Stein, for example, breaks down syntax using charming arrangements of known text to create something new. The result is a set of known words that serve a different purpose in their new construction, repeated freely for emphasis. While repetition and juxtaposition of given words or lines in text are not present in *CAPTCHA*, the themes of decontextualization of known words and deconstruction of syntax are. Yet, on the whole, the absence of gibberish-like text makes the comparison a loose one and places even Stein’s work outside of the framework of a prime comparison.

An early example of a text that features gibberish words as part of a larger work is Lewis Carroll’s “Jabberwocky,” first published in his family’s magazine, *Misch-Masch*, and

⁷ Richard Kostelanetz, “Text Sound Art: A Survey,” *UbuWeb*, <http://www.ubu.com/papers/kostelanetz.html> (accessed April 21, 2016).

⁸ *Ibid.*

found in its complete form within his novel, *Through the Looking-Glass, and What Alice Found There*.⁹ The poem itself has been set to music in a wide variety of forms, including solo voice, choral ensemble, and assorted chamber ensembles. Even in the solo stanza, which reads intelligibly like poetic verse, various nonsense words are interspersed within the story's narrative. Not only were meanings for the first stanza's difficult words given as footnotes, but an entire exchange between Alice and Humpty-Dumpty in *Through the Looking-Glass* is devoted to the comprehension and understanding of the nonsense words. Many scholars have gone to great lengths to ascertain definitions for the words discussed in neither the magazine nor the novel, but there is a great deal of merit in revisiting the original material for its presentation and explanation of the unknown words.

In the story, Alice finds the poem in a looking glass and, after reading it, can vaguely make out the plot of somebody killing something without understanding anything more.¹⁰ The poem resurfaces later when she makes contact with Humpty-Dumpty, who claims that words can mean whatever he chooses them to mean. Once she identifies that he is keen with words, she reads him the first stanza,

'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe:
All mimsy were the borogoves
And the mome raths outgrabe.¹¹

Humpty-Dumpty stops her there to say that there are already a significant number of difficult words in that excerpt, and he continues to define the words one by one. "Brillig" is 4:00 P.M.,

⁹ Roger Lancelyn Green, explanatory notes to *Alice's Adventures in Wonderland and Through the Looking-Glass and What Alice Found There*, by Lewis Carroll (London: Oxford University Press, 1971), 266.

¹⁰ Lewis Carroll, *Alice's Adventures in Wonderland and Through the Looking-Glass and What Alice Found There*, ed. Roger Lancelyn Green (London: Oxford University Press, 1971), 136.

¹¹ *Ibid.*, 190-91.

because that is when things are “broiling” for dinner, which is a definition related to the word’s cognate. “Slithy” is defined as “lithe and slimy,” a portmanteau, combining two words into one. “Toves” are described as being like badgers, lizards, and corkscrews, a peculiar meaning derived from nothing in particular, but specific enough that Humpty Dumpty can continue to describe their living and eating habits. A pair of verbs come next: to “gyre” is to move like a gyroscope and to “gimble” is to make holes like a gimlet (a small tool for boring holes), representing nonsense words that resemble fragments of real words and carry their meaning. Alice surmises that “wabe” is the plot of grass around a sundial, which Humpty-Dumpty explains, “because it goes a long way before it, and a long way behind it,” using a description in which the word “wabe” may be heard. “Mimsy” is described as a mix of miserable and flimsy, under the same logic as “slithy.” “Borogoves” and “rath” are nouns without an overt way of deriving meaning like “toves.” Particularly interesting is that, when presented with “mome,” Humpty-Dumpty does not know the meaning with certainty but decides on a definition based on his own sensibility and that which was presented before him, settling on an abbreviation of “from home.” To “outgrabe” is not given a definition in this case; rather, it is described by how it sounds.¹² Whether it is a cognate or fragment, a specific creation with no link to text, or an abstract abbreviation, there are many strategies for ascribing meaning to nonsense words as presented in Carroll’s novel. As Humpty-Dumpty does near the end of his interpretation, an audience may be able to infer meaning based on patterns in the ascribed meaning from previous gibberish texts, resulting in a learning process that may take place throughout the *CAPTCHA* cycle.

At first glance, the music from *CAPTCHA* may appear to tell a certain story, as the “Jabberwocky” poem did for Alice, but with no specific definitions of the words whose

¹² Carroll, 191-93.

meanings are in question. *CAPTCHA* does not embody the same poetic style that “Jabberwocky” does; as a result, syntax and pronunciation are less intuitive. Still, some of the strategies identified for interpretation in Carroll’s text are clear and provide justification for analysis of texts that embody similar qualities to that of *CAPTCHA*.

Later texts from James Joyce, including substantial wordplay and a partial departure from the English language, provide a major parallelism to the found text used in *CAPTCHA*. *Finnegans Wake* is a novel late in Joyce’s output and considerably more exploratory in language, employing those characteristics that make *CAPTCHA* difficult to decipher. In an introduction to the novel, Seamus Deane writes:

The language of the *Wake* is a composite of words and syllables combines with such a degree of fertile inventiveness that new sounds and new meanings are constantly ingenerated. Joyce involves himself and us in an extremely complex series of translations that are endless because there is no original and no target language to supply a limit to the visual and sonar transactions that are negotiated by the text. Indeed, it may be that the only assumption that permits us to embark upon the activity of translation is itself the source of the work’s conflictual and prolific nature – viz. that the original language *is* the target language.¹³

Deane’s statement about ever-changing meanings is true of text in which there is no known definition in existence. His suggestion appears to be that rather than considering the language a made-up series of words that requires meaning, the presented text is, in fact, a new language.

On interpretation, he continues:

It forces the reader to pay attention to the various genealogies of words and their functions – how they are, in the most basic sense, composed of letters and combined into syllables, how they are heard and how they are seen, what historical weight and valencies they bear, what psychological, political and social functions they perform, their proximity to and their distance from grunts and noises, their liberating and their repressive efforts, their dependence upon syntax and grammar and their capacity to generate meaning, wildly and anarchically, when freed from those systems of governance and communication.¹⁴

¹³ Seamus Deane, introduction to *Finnegans Wake*, by James Joyce (London: Penguin, 2000), viii.

¹⁴ *Ibid.*, viii-ix.

Deane presents some of the ways in which both the text in *Finnegans Wake* are read, and the words in *CAPTCHA* may be heard by an audience. The major difference is that all of these elements and characteristics can be infused with significance or devoid of them in *CAPTCHA* depending on the performer's interpretation, whereas *Finnegans Wake* is a book. Interpretation is at the hands of the reader or audience, even though the performer of *CAPTCHA* may have more direct influence in suggesting a particular interpretive choice. These are some of the elements that an audience may or may not consider, consciously or subconsciously, and the medium of live performance certainly plays a factor.

Samuel Barber famously set a passage from *Finnegans Wake* as an art song called *Nuvoletta*, about which tenor Kevin McDermott writes:

Joyce's language has *become* music by the time he wrote his last great work. To my mind, Samuel Barber (1910-1981) is the only composer to return the compliment, absorbing the essence of Joyce's wordplay and translating it into the "musicplay" of *Nuvoletta*. Some examples of the themes and techniques he utilized are the song's cyclic form and main theme, which evokes merry-go-round music; quotation (Wagner's famous "Tristan" chord sequence at *tristis tristior tristissimus*); multi-level puns (at *first by ones and twos then by threes and fours...*, the musical intervals in the voice and the rhythms in the piano "count along"); and sheer joy in the sound of sound (such as the unearthly echo of the weeping *oh! oh! oh!*, produced by the piano's vibrating open strings).¹⁵

There are numerous parallels to *CAPTCHA* here. For example, "1782, guilded" in the first movement and its reference to a Mozart opera (see Chapter 3) is similar to the aforementioned Tristan quote. Puns are strewn throughout *CAPTCHA* and may be overtly interpreted, most obviously the word "END" to end the piece in its entirety, presenting a sort of transparency between performer and audience. *Nuvoletta* is not Barber's only setting of Joyce text, but it most closely resembles *CAPTCHA* in that it not only obscures the meaning of known words

¹⁵ Kevin McDermott, liner notes to *MORE Music from the Works of James Joyce*, Kevin McDermott, Sunphone Records 777215105799, CD, 2006.

but includes the unknown to be interpreted and interpolates a playful musical character to “complement the written text.”¹⁶ *CAPTCHA* is not poetry and has the added task of transcending its original Turing test purpose, but its ability to draw fruitful comparisons to such monumental works of literature that play with the English language and their musical settings is a testament to Paterson’s effective arrangement of texts. Barber’s setting of Joyce’s text to reflect the spirit of the written text is parallel to Paterson’s use of found *CAPTCHA* texts.

A musical work originally conceived as music that treats text similarly to *CAPTCHA* is Olivier Messiaen’s *Cinq Rechants*, the third in his “Tristan” trilogy. In this twelve-voice a cappella piece, Messiaen used a combination of French text and a language he composed that was reminiscent of and inspired by Sanskrit and the ancient Peruvian language of Quechua. In an analysis of how that text was used, Edgerton writes, “Phrases in the French language alternate with passages in a freely invented tongue, a fluid association of such onomatopoeic sounds as ‘hayo kapritama,’ ‘oumi annôla oumi,’ and ‘niokhamâ palalan souki.’”¹⁷ The different languages typically appear separately, but could appear within the same line; in those instances, an effect similar to that of *CAPTCHA* is achieved. About the piece and its handling of text, Philip Weller writes, “The need not just to respond musically to the *Rechants* but to search for meaning in them is generated in part by the dislocations themselves, between the images and

¹⁶ Courtney Doyel Karns, “Samuel Barber’s Use of the Texts of James Joyce,” poster from University of Wisconsin Eau Claire, <http://digital.library.wisc.edu/1793/31977> (accessed April 21, 2016).

¹⁷ Robert Alson Edgerton, “An Analysis for Performance of Messiaen’s *Cinq Rechants*,” (D.Mus diss., Indiana University, 1973), 17.

fragments of text as they emerge, collide and eventually disappear again.”¹⁸ By the logic of this statement, a piece that feeds meaning in an incomplete way, more discernable at some times than others, further draws in the listener. *CAPTCHA* employs this concept by varying the rate at which unintelligible words appear in different sections.

With regards to the performance practice of the *Cinq Rechants*, Edgerton writes, “One of the fascinating and revealing aspects of *Cinq Rechants* is that its musical and poetic complexity has not led to an undue proliferation of interpretative mysteries. Practically everything in the score can be seen as a representation of the text; once the inner essence of the cycle has revealed itself, there are surprisingly few areas of uncertainty.”¹⁹ This is a particularly interesting remark because, like *CAPTCHA*, the text is partly nonsensical. Yet if the score is reflective of the text, the sonic quality of the score implies a meaning or range of meanings to be projected onto that text. About the composed text, he writes, “In those few cases where textual symbols cannot be positively identified, the strength of Messiaen’s conception and the clarity of the notation often reveal his intentions quite explicitly.”²⁰ This statement would imply that the answers lie within the music, and proper attention to expert execution will direct performers to the desired outcome if such there be. Edgerton does not hesitate to add that too much individual interpretation could cause the music to suffer, though the twelve-voice ensemble idiom could have a substantial amount of influence on that. Messiaen’s music is laid out such that attention to detail is the key to a successful performance.

¹⁸ Philip Weller, “Messiaen, the *Cinq Rechants*, and ‘Spiritual Violence,’” in *Messiaen Perspectives 1: Sources and Influences*, ed. Christopher Dingle and Robert Fallon (London: Routledge, 2013), 282.

¹⁹ Edgerton, 153.

²⁰ *Ibid.*, 154.

Interviews

I have been fortunate enough to engage Robert Paterson in multiple telephone conversations about *CAPTCHA* to understand more about the genesis of the piece, his ideal interpretation, and aspects to consider in analysis. I was also able to speak with the first two baritones to perform the entire cycle, Jesse Blumberg and Daniel Ihasz, about their individual experiences with the piece. The following section contains relevant information from those conversations.

Paterson enjoys setting non-traditional text which causes the audience to think. In this case, they must decide for themselves if the piece is meaningful and they don't understand it or if it really is meaningless, and there is no clear answer. The audience could look to the lyrics to verify what they hear only to find that some of the words are not what they seem to be. In reference to emotion, Paterson mused that the piece "almost tricks people into wanting to feel it."²¹ The resulting experience is what the piece was conceived to be: highly emotional, but with varying levels of comprehension.

The process of selecting CAPTCHAs was a tedious one. Paterson would sit for hours at a computer screen and manually shuffle through texts produced through a free application called reCAPTCHA. Some of the words produced were so strangely unpronounceable or contained numbers that would not translate well to singing, so they were not retained. Others caught his eye and went into a collection of over 100 CAPTCHAs for possible use. From there, he whittled down the list and grouped them together in various ways. He imagined his own narratives for the collected texts before setting them to music, but had no preconceived ideas before gathering and arranging them. The process was

²¹ Robert Paterson, telephone interview with author (recorded), February 19, 2016.

described as playful and resulted in a five-song cycle in which each of the five songs has a very distinct quality and its own narrative.

Musically, Paterson uses various types of scales freely. *CAPTCHA* was not composed in a serial way; rather, it is very tonal and utilizes motivic patterns, tonal centers, and modulations intentionally. There are instances in which non-triadic harmonies and complex scales are employed to obscure tonality, such as in the second and fourth movements. In particular, Paterson describes octatonicism as a “nebulous, questionable kind of sound,” dependent entirely on how it is used.²² Still, he plays with his harmonic and melodic content and varies it to keep everything fresh. In some cases, the octatonic scale shifts or a scale includes an extra note or two, which makes the music more difficult to analyze but more interesting. In addition to harmony, the composer emphasized the importance of form in our conversation. He gave serious consideration of the amount of time given to a thought or idea without using a specific mathematical principle in his composition of *CAPTCHA*. When composing the voice and piano parts, it is interesting to note that Paterson typically sketches the vocal line first, as set to the arranged text. This drives the harmony and form.

Paterson shared a story about the genesis of the fourth movement, “Voix gustroor,” that elucidates his views on interpretation. Before setting the text, he ran web searches for “Voix” and “gustroor.” After the search for “Voix” resulted in the French word for “voice,” he decided to split up “gust” and “roor.” The search for “gustroor” may have come up empty, but it turns out that ROOR is a Dutch company that sells bongos.²³ As a result of this search, Paterson decided to compose the fourth movement with smoking marijuana in mind.

²² Robert Paterson, telephone interview with author (recorded), March 27, 2016.

²³ “Shop | RoOR,” www.roor.de (accessed May 2, 2016).

This idea is not written anywhere and appears as nothing more than an implication. With that understanding, there is adequate context given to expressive markings such as “Hazy,” “Exhale,” and “Languid,” stage directions to breathe in and out, and a CAPTCHA that reads “shown pothead” embedded in the movement. However, Paterson keeps this and any other narrative of his hidden, and would be “totally happy if someone interpreted it differently.”²⁴ Despite the existence of a narrative in Paterson’s mind at the time the movement was composed, a performer choosing to use this narrative may be no more or less correct than one who forms another and executes it effectively.

While Paterson would often tell the baritones with whom he worked about what he was thinking, he would encourage them to create their own interpretation. Additionally, he would typically not tell one performer what another did so that the results would be genuine and original. Paterson said that his stage directions are merely suggestions and not intended to be the only time the performer is physically engaged. Furthermore, since they are suggestions, they may be left out if there is a strong reason to. Paterson tends to write more stage directions so that his performers do not *just* sing the text, but consider his pieces dramatically and physically. In his estimation, Paterson is very open to different interpretations as long as correct pitches are sung, and sung loud enough to be communicated. As a result, different singers may attempt to uncover meaning in original ways.

Baritone Jesse Blumberg recorded the piece in April 2013 and sang in its official premiere later that year, in December. He noted how Paterson was a great collaborator and very open to discussion about the range of interpretive possibilities in the piece. He performed the movements of *CAPTCHA* as five individual stories or vignettes, and as if he

²⁴ Paterson, telephone interview, March 27, 2016.

were a narrator telling the stories. He compared the performance of this piece to that of a Bach cantata in terms of its clear enunciation and level of emotional reserve. On the other hand, he also referenced a similarity to performing an art song like *Erlkönig* in terms of storytelling in which the narrator cannot help but get involved. He also acknowledged a paradox in preparing *CAPTCHA*: typically, a singer would interpret music based on the reading of its poetry; in *CAPTCHA*, the lyrics are inspired by the music because of their lack of meaning, thus creating a unique experience.

In our conversation, Blumberg remarked on the humor involved in *CAPTCHA* from an audience standpoint. The cycle begins with “duchenp fled.” Its seriousness is so extreme while saying nothing that is recognizable in any language that it leaves the audience with little ability to relate. While the piece itself is rather somber, presenting the disconnected feeling between singer and audience as an introduction can be quite humorous.

To Blumberg, the five movements each have a certain feeling to consider based on music and text. For example, in his interpretation, the second movement has a Slavic feeling based on his knowledge of Russian diction, so he chose to emphasize that in his pronunciation choices. The fourth movement, based on words such as “Sinfonie” and “ernowbt” seemed, in his view, to have a Northern European feel, as if the story were being told from Amsterdam, so his pronunciation reflected that.

As a singer, Blumberg would continue to base his interpretations of the text on the music. For example, in the fifth movement, “Secretary metadon,” he would almost imagine a dinosaur working in an office (in observance of the definition of the word ‘secretary’ and the qualities of the word ‘mastodon’) and the “menacing” quality of the music to imply tension there. As another example, the *CAPTCHA* “lawastty REBECCA” could suggest that “REBECCA” is not only a lawyer, but a nasty lawyer, based on visual and aural connections

drawn to the words “law” and “nasty” drawn from the gibberish word. In other cases, gibberish words could be used to feign saying other words, such as “cialArc” in the fourth movement which could be performed as “see, a lark!”

Blumberg mentioned the importance of understanding the story as a performer. While performing, he projected to the audience that it was important for them to understand what he had to say. An awareness that they do not actually understand the story can add further drive to the performer to find ways to tell it. But while the story should be clear and consistent, the individual word meanings may not be. Blumberg finds that, to keep his imagined visual images fresh, he sometimes does not use the same one twice. As an example, for the CAPTCHA “varialla approaching,” he finds it important not to know exactly who or what “varialla” is until the moment before it is to be sung. After that, the singer’s reaction to his freshly conjured image can show clearly on his face or in his tone.

While wrapping up our conversation, Blumberg posed that it will be interesting to see what people think of this piece years in the future. Today, reCAPTCHA is beginning to use non-text images and other security measures, which will result in the replacement of the text-based CAPTCHAs that comprise this piece. It is already interesting to hear the various perspectives of those who have worked with *CAPTCHA* in its short existence.

The other baritone interviewed was Daniel Ihasz, who performed *CAPTCHA* with Paterson in Colorado in an unofficial premiere in the summer of 2013. This performance took place after the recording but before the official premiere in New York. Paterson did not share much about Blumberg’s choices throughout their collaboration so that Ihasz would make his own. In their work together, Ihasz appreciated Paterson’s malleability and openness to new ideas. He also praised the composer for the theatricality and humor present throughout the cycle.

Ihasz admitted that, at first, he struggled with the text because of its lack of meaning and obvious pronunciation. The wordiness of the fourth movement was also difficult. He noted that he frequently communicated with Paterson about pronunciation but that such choices were ultimately his to make. Regarding pronunciation, he would often let the music be the guide. The ability to choose different vowel sounds for a gibberish word was liberating in the case of higher passages; rather than using vocal technique to modify a particular vowel for a high note, he had the ability to choose a different vowel if it suited him better. Consonants were also chosen carefully. Ihasz believes that the percussive consonant sounds in the CAPTCHA texts fit into the texture of the music. Because he knew that Paterson is a percussionist, he would find moments to be more percussive, such as the very first line of the first movement, “duchenp fled.”

Regarding interpretation, Ihasz viewed the cycle as five different songs within the same genre rather than one complete, interconnected piece. He compared it to a symphony with its movements as parts of a whole, rather than a song cycle by a composer like Schumann, with songs linked thematically. Ihasz varied his physicality and gesturing significantly between the five movements depending on what he found to be appropriate. For example, he described the first movement as somber and dark and kept a relatively stiff physicality to draw the audience in. In contrast, he described the second movement as darker and spooky and his movement as “pretty overt.”²⁵ There were moments in which he changed his vocal style as well. Ihasz described the third movement as a jazz tune and used techniques appropriate of a jazz singer such as scooping into pitches. At the end of the fourth movement, on text which reads “dream spoll,” he would sing in *voix mixte*, a lighter

²⁵ Daniel Ihasz, telephone interview with author (recorded), March 21, 2016.

vocal quality to reflect an ethereal, dream-like state. He referenced at least one gibberish word to be interpreted for its association to another word: “Flackl” in the third movement relates to “flaccid.” His concept for each movement was developed by the words, such as the office scene in the fifth movement implied by its title, “Secretary metadon.”

Ihasz would involve the audience in his interpretation in a few instances by making topical, relatable references they would understand. In the fourth movement, his interpretation was similar to Paterson’s in terms of its references to marijuana partly because it had been less than a year since the state legalized marijuana use. Ihasz recounts that, in the section that features consecutive CAPTCHAs containing the name “Robert” that he would point out the various Roberts in the audience, finally arriving at Robert Paterson as an overtly humorous display for the audience. Whether the audience was familiar with the other Roberts, the piece took place after Paterson spoke about it so they could at least appreciate the reference to him.

As we finished our conversation, Ihasz delivered a line that particularly stood out to me: “singing is acting with music.”²⁶ Based on the inherent theatricality throughout its movements and the many appropriate and effective ways in which it can be performed, I believe that this is especially true of *CAPTCHA*.

It is interesting to note some of the differences in Blumberg’s and Ihasz’ interpretation of the piece; namely, Blumberg interpreted the piece as a narrator whereas Ihasz portrayed a character with a few comedic departures into non-realistic acting. It is equally important to note that, based on the freedom given unto the performers by Paterson, that both are equally correct. Ihasz remarked that each singer and his varied base of experiences bring a new range of possibilities to the piece. The meanings of the gibberish

²⁶ Ihasz, telephone interview, March 21, 2016.

words in *CAPTCHA* and how they are presented may be at the performer's discretion, but both Blumberg and Ihasz agree that the music is important in making effective choices.

CHAPTER 3. Theoretical Analysis

In the absence of intelligibility in the text itself, the next logical avenue is to examine the music of *CAPTCHA*. Information about parallelism between passages and unifying elements between movements with a breakdown of form can help the baritone organize how individual sections may be interpreted based on elements implicit in the score. On the other hand, on the analysis of contemporary music, Charles Wuorinen writes:

It is possible to observe, however, that the type of analysis generally presumed to have value in ‘theoretical’ explication is often useless in the preparation of a performance. The theoretic kind of analysis is usually devoted to displaying relationships that are sufficiently unobvious as to require that they be pointed at by other than aural means in order to be perceived. (This should not be taken as any criticism of such relations: it has been observed that any relation once exhibited can be heard, and in any case it is usually not the most apparent relations that are the most significant.) From the performer’s point of view, such conventional analyses, while of course generally useful to him outside of rehearsal, nevertheless fail to motivate his manner of playing, since their major part is most often devoted to translating the information presented in a work into another (usually verbal) linguistic medium.²⁷

My aim in providing an analysis is to identify characteristics that are essential for a performer to be aware of in building his interpretation. Identifying the structure of the individual movements and the character of various sections can provide a performer with a framework, from which he may develop a concept or build a narrative. There will be examples provided to illustrate better the point being made, but it must be stressed that there is not a “correct” interpretation to be provided, nor would one presented here venture to fit that description.

CAPTCHA is a five-movement piece in which each movement begins with a piano introduction to establish the character of the vocal music to follow. The only exception is the third movement, whose vocal line is cued by the note in the piano’s right hand at the end of the second movement and appears in contrast to the tumultuous music of the postlude.

²⁷ Charles Wuorinen, “Notes on the Performance of Contemporary Music,” *Perspectives of New Music*, no. 3 (1964): 18.

Repeated text is handled in a generally consistent way throughout the movements of *CAPTCHA*. Each *CAPTCHA* phrase contains two words. The original *CAPTCHA* composed in 2012, the first movement, features two *CAPTCHAs* per line whereas the rest of the piece, composed later, limits each line to one *CAPTCHA* each. In general, one or both words may be repeated unless another *CAPTCHA* phrase has been introduced. A complete table of repeated text may be found in Table 1. From this table, one may observe trends in Paterson's choice to repeat certain texts a particular number of times and ascribe a similar subtext when approaching text with a particular number of repeats. It is evident from this table that the fourth movement employs many repeats in groups of three, but there are other instances in which a grouping of three occurs. The performer may decide to deliver such texts with similar emphatic qualities since the music allows for such freedom.

Table 1. Repeated texts throughout *CAPTCHA* and number of repeats

No.	Repeated text	Location
12*	uropley	V, 72-81
8**	duchenp fled	I, 5-12
8**	alfari weeps	I, 28-35
8**	varialla approaching	II, 42-49
7	Feervid LENGTH	III, 17-20
6	WhenRus comes	III, 31-36
5	Ancipart glass	II, 26-31
4	incredulous	I, 20-22
4	Ancipart glass	II, 34-37
4	invasion essiGen	II, 50-55
4	Petsra has	V, 29-30
4	heckdin soul	V, 35-42
3	blood hreerdi	II, 13-17
3	higoopa 666	II, 60-67
3	appears flackl	III, 23-26
3	MUSICAL alengus	IV, 16-18
3	harmonic nstryfl	IV, 19-23
3	shown pothead	IV, 40-43
3	cantsak ACTING	IV, 49-52
3	calumny	IV, 53-56
3	also	IV, 57-60
3	called awspes	IV, 64-69
3	Sinfonie ngtinPe	IV, 70-74
3	dream sppoll	IV, 77-82
2	youJusto nicely	III, 1-7
2	Voix gustror	IV, 9-13
2	buglehorns uldogne	IV, 36-38
2	lawastty REBECCA	V, 23-24
2	courcte expression	V, 25-26
2	Wslykmi Robert	V, 49-51
2	SEVEN atthats	V, 63-64
2	respecting tusMore	V, 65-66

* repeated in four groups of 3

** repeated in two groups of 4

There are a few departures from the general textual formula; for example, the first movement ends with a return of “alfari weeps” after “Devillu noun” has been introduced. In this case, the two CAPTCHAs present less of an exception to the rule because the first movement presents CAPTCHAs in groups of two pairs and they are part of the same line.

The fifth movement, on the other hand, provides a few clear exceptions. In the case of “orsrans charcoal / pesistri charcoal” in mm. 31-34, the consistency is maintained, though there appears to be an intermingling of words from different CAPTCHAs because “charcoal” is repeated. (A similar occurrence can be found in the second movement with the text “capture mancisea / captured iturnp” in mm. 11-12.) Later in the fifth movement, in the passage of consecutive CAPTCHAs containing the word “Robert,” one CAPTCHA, “orypeue Robert,” is presented out of sequence in mm. 54-55. After that, there is a merging of CAPTCHAs in the section entitled “The Bells of ranentri,” in which the printed order is “SEVEN atthats / respecting tusMore,” but the text appears as “respecting SEVEN atthats” in mm. 68-69. These exceptions occur at the end of the piece in specialized sections and can be regarded as exceptions to an otherwise formulaic structure. Because the text is not freely repeated out of order, a refrain may appear in music and not in the text, but this knowledge could provide the performer with a parallelism in terms of meanings from two unintelligible CAPTCHA phrases.

The text itself, as previously mentioned, is a combination of improperly scanned words and gibberish. Nearly every CAPTCHA used for this text is a combination of a word, name, or number in English and a gibberish word. There are only three exceptions to this: (1) “bring towels, which features full intelligibility at a key point to end the third movement; (2) “Voix gustroor” to begin the fourth movement with the known word in French; and (3) “shown pothead” later in the same movement with two known words. The CAPTCHA that reads “operations naturE” in the fifth movement is not on this list, as the word “nature” is decontextualized by its irregular capitalization and subsequent musical setting, in which the “E” is set as its own syllable. Being aware of exceptions can allow the performer to exaggerate or mask them as he sees fit.

Pronunciation of the various words presented throughout the piece is a freedom given unto the performer by the composer. However, once those words are fit to metered music, that freedom becomes somewhat limited, since there is a natural strength in the metric pattern and there must be an agreement between the text and the meter to communicate effectively. For example, while it is not expressly advised by the composer, the second syllable in both “duchenp” and “alfari” in the first movement always lines up with the downbeat, implying an emphasis there. Furthermore, there are many instances in which the composer provides articulation symbols for both known and gibberish words to imply a “correct” interpretation. For example, in every instance of “Ancipart,” there is a tenuto mark on the syllable “part,” suggesting that an emphasis would be correct. This is another example of the source material dictating interpretation in the absence of an existing word.

The text stress within phrases is a combination of musical and textual consideration. When given freedom by the music to choose an emphasis, the performer may opt to emphasize the real word in each pairing. On the other hand, he could choose the gibberish word based on its meaning or how it fits in the phrase. Patterns within text setting may be an influential factor. For example, if a series of words is presented with the real word first and the gibberish word second, textual emphasis may be given similarly across the phrases. In the following analysis, there will be tables for each movement which present the text so that such patterns and departures may be easily identified. This will be called text pattern analysis.

In an interview with the author, the composer stated that form and the different sections were important in the construction of the piece. He cited the occasional use of quartal and quintal harmony in some instances and multiple sections which feature octatonic and whole-tone scale patterns. But, he also cautioned that there times when he would slightly

modify a scale.²⁸ This further emphasizes the importance of focusing on elements which are pertinent to performance and not getting in the details of exact harmonic or melodic material at a given point. For the purpose of helping to construct a narrative or recurring ideas for a full performance, the analytical observations to follow will be presented in chronological order.

I. duchenp fled

The first movement, “duchenp fled,” is constructed in ABA’ form. As mentioned previously, the piece begins with a four-measure piano introduction to set a seemingly somber tone before the voice enters. This A section is in G harmonic minor and features antecedent and consequent phrases in mm. 5-8 and mm. 9-12, respectively, in which the text “duchenp fled” is repeated four times each. With the same chords in the piano part, the antecedent-consequent relationship is found in the vocal line, in which the flat-sixth scale degree is used in a somewhat cadential manner in m. 8 on “fled.” The first appearance of the seventh scale degree, a leading tone F-sharp (excepting the enharmonically equivalent G-flats in mm. 4 and 8), appears in the vocal line at m. 12 on “fled,” highlighting the pitch, the tonality, and a melodic pull to the next section. This freshly-introduced color on the lowest pitch of the entire cycle may also be used for characterization. Transitional material continues from mm. 13-15, beginning in G minor with deep, sustained pitches in the left hand of the piano, vocally sequencing upward to the first big moment of the piece, the E-flat “Yea” on beat 2 of m. 15. While the voice cadences on that same flat-sixth scale degree in G minor, the chord functions as a major flat-six chord in C harmonic minor, which is the predominant scale outlined beginning at the B section, in m. 16 (see Ex. 1). After this transition, there is another major

²⁸ Robert Paterson, telephone interview with author, February 19, 2016.

flat-six chord on beat 2 of m. 17 with the voice singing the root, displaying a parallel in harmonic language to earlier iterations and a full turnover into the new key area.

Ex. 1: *CAPTCHA*, mvt. 1, mm. 14-16

The musical score for Example 1 consists of three systems. The first system (measures 14-16) shows the vocal line in a bass clef and the piano accompaniment in a grand staff. The vocal line begins with a mezzo-forte (*mf*) dynamic and includes lyrics: "cens O-ver-tanc", "rur - al - so Yea", and "po - li - ti - cal ar - o - fun po-". The piano accompaniment features a bass line with chords and a treble line with arpeggiated figures. Dynamics include *mf*, *f*, *ff*, and *p*. A tempo change from *poco rit.* to *a Tempo* is indicated above measure 15. Chord diagrams are provided for *g: i*, *g: VI*, and *c: i*.

Measures 18 and 19 take a brief departure, outlining a B-flat major chord in a higher register. The contrast with the movement’s predominantly minor tonality implies a new, perhaps fleeting thought by the vocalist. According to the composer, these measures were composed with a reference to Mozart’s *Die Entführung aus dem Serail* in mind, with 1782 (part of the CAPTCHA text, sung as “seventeen eighty-two”) – the year of its premiere. The word “gilded” may be interpreted as “gilded,” in reference to Viennese wealth. A transposed theme from the opera appears in the right hand of the piano in m. 19 (see Ex. 2).²⁹ The audience can glean enough about the moment without specific recognition of the opera, but the performer should be aware of the theatrical aside.

²⁹ Robert Paterson, e-mail message to author, April 7, 2016.

rit. -----

19

Ex. 2a: *CAPTCHA*, mvt. 1, m. 19

Ex. 2b: *Die Entführung aus dem Serail*, K. 384, Violin I, mm. 1-4³⁰

The B section resumes in m. 20, and Paterson describes the flat-six on beat two as “deceptive” because it functions as an A-flat major chord approached cadentially in the voice, but launches into an octatonic sequence (without a G-flat) in the measure that follows (see Ex. 3). The section still sounds relative to C harmonic major, especially with the insistence of A-flat and B-natural. Intensity builds in the form of an accelerando paired with quintuplet figures in the right hand to the climax of the movement at measure 22 on the last iteration of “incredulous,” whose repetition can serve the vocalist well with its known meaning. The piano part in m. 23 embodies the falling action after the climax, falling into a recapitulation of the movement’s introduction at m. 24, marking the start of the A’ section.

Ex. 3. *CAPTCHA*, mvt. 1, mm. 20-21

a Tempo *mf* *f* *p* accel. -----

20

ic - serve in - cred - u - lous in -

21

cred - u - lous in - cred - u - lous in -

³⁰ Wolfgang Amadeus Mozart, *Die Entführung aus dem Serail*, K. 384 (New York: Kalmus, n.d.), 1.

The return of the A section appears a perfect fourth lower and features a slightly different melody but maintains enough metric and tonal similarity to be considered the same. The major difference is the overt display of the harmonic minor, with more inclusion of the flat-sixth and raised-seventh scale degrees. Measures 35 through 37 feature multiple references to the A section, such as a cadence on the flat-six scale degree on “weeps” in m. 35 and a return to the flat-six scale degree of G in m. 36, presenting the same pitch class and tonal function as the opening section.

Table 2. Text pattern analysis of Movement 1, “duchenp fled”

Gibberish Word Before	English Word	Gibberish Word After
duchenp	fled	
	cens	Overtanc
ruralso	Yea	
	political	arofun
	1782	gilded
icserve	incredulous	
alfari	weeps	
Devillu	noun	

There are fewer words in the first movement than the others. Still, Table 2 shows that there is a small grouping of the texts in the C section and the measures directly preceding it in which the gibberish word precedes the real word. The pattern is perpetuated further by the high frequency of repeated text (see Table 1).

II. Henry folutch

If the first movement emphasizes flat-six, the second movement highlights the tritone. The second movement, “Henry folutch,” is divided into three sections and there is a noticeable contrast to the first movement as soon as it begins. The piano introduction enters at a brisk tempo in compound meter, primarily drawing from the octatonic scale for its harmonic and

melodic content. Whereas “duchenp fled” was characterized by even four-measure phrases, the introduction of “Henry folutch” is a total of five bars: four bars of a consistent rhythm in a downward sequence followed by two dyads outlining tritones in m. 5. “Dark and foreboding; film noirish,” the expressive marking at the beginning of the piece, is characterized by this introduction followed by sharp, low-register diminished chords in the left hand. Through this opening section, the piano accompaniment predominantly outlines diminished chords and tritone dyads while the disjunct voice part covers over an octave and a half of range with high-intensity dynamics. The text displays great potential for plosive consonants such as /t/ and /p/ as well as rolled /r/ sounds, which can further display the intensity present in the music. There are differences in the instances of repetition in this movement, and “blood hreerdi” repeats three times to end the A section.

The piano presents transitional material with gradually augmented rhythms in an upward sequence, like a melodic unweaving, arriving at the B section at m. 18. This new section is characterized by a G-sharp major tonality (primarily expressed enharmonically) with consistent minor-second coloring to obscure an association with the major scale. The piano interlude is grouped into two-measure phrases with figures that jump out of the texture in the right hand in mm. 23 and 25. The first “Ancipart glass” section begins at m. 26, with five statements of the text, with the last one punctuated on the tonic. The second, similar “Ancipart glass” section features four statements of the text followed by a punctuation on “cemaeeve armed,” suggesting a possible parallelism between the texts. The piano part slowly transitions from G-sharp to A with polychordal material through the sequence. The technique marking to emphasize the lower notes (which generally belong to the G-sharp part of the chord) is to help the vocalist, whose line still functions in G-sharp. The end of the B section and the beginning of the C section briefly co-exist in mm. 38-39, in which the vocal part remains in

G-sharp while the piano features a pedal A and figures outlining an A minor chord (see Ex. 4). The piano entrance in m. 40 clearly establishes the new key area of A minor (with a tritone for color) and the beginning of the C section.

Ex. 4. *CAPTCHA*, mvt. 2, mm. 38-39

The musical score for Example 4, *CAPTCHA*, mvt. 2, mm. 38-39, is presented in three staves. The top staff is the vocal line, the middle staff is the piano right hand, and the bottom staff is the piano left hand. The key signature is A minor, with a box labeled 'G#' indicating the key signature change. The vocal line begins with the lyrics 'ce - maeve' and 'armed'. The piano accompaniment features a strong dynamic of *ff* (fortissimo) and a piano entrance in m. 40 with a dynamic of *mf* (mezzo-forte). The score includes a key signature change to G# (indicated by a box) and a pedal point 'a:' (indicated by a box).

The C section is characterized in part by its build to the climax, which occurs through a series of smaller builds in groups of four. In the first build, mm. 42-45, the left hand of the piano creates a rhythmic ostinato and continues to build in an upward sequence through the lower notes. The right hand contains flourishes and punctuations which outline dissonances of a tritone and a major seventh above A. Meanwhile, the voice moves from the tonic to the subdominant in stepwise motion on repetitions of “varialla approaching,” with a natural crescendo when the voice moves out of the lower register. Anticipation, therefore, is built into the word “approaching.” The next group of four, mm. 46-49, starts this process over again for the voice but highlighted by the silence from the right hand and some leaps in which he is joined by the piano’s left hand. The last group before the climax has four iterations of the phrase “invasion essiGen,” but in six measures over a pedal F, the flat-sixth scale degree of A, with harmonies that function as a temporary tonicization to F Lydian. The voice part, again rising in sequence, maintains the A minor context. The first two instances of this CAPTCHA

occur over two measures each with the last note held through a second bar. This last note is rhythmically diminished on the third and fourth iterations to contribute to the build in momentum. The pitches are an octave above “varialla approaching,” creating a different vocal color. The climax occurs at m. 56, exactly in the middle of this section, sixteen measures from the beginning and sixteen measures from the end of the movement. Interestingly, while the voice outlines a dominant seventh chord from mm. 56-59, the piano outlines a tonic triad, illustrating the tumult of the movement. According to the composer, this last section from m. 60 to the end was intentionally composed with a minor tonality to reflect the “666” and its overt connotation involving the devil.³¹ An A minor tonality is clearly implied here with a brief use of the major six chord again, the predominantly F major area in mm. 63-65, which adds contrast in the repeated text. The text “higoopa 666” is repeated three times, similarly to “blood hreerdi” earlier, and the phrases are three measures each. This movement ends with a high B in the right hand of the piano, which is dissonant against the pedal tone A in the left hand of the piano. This is the only instance in which the ending cues the vocal line for the beginning of the third movement.

There are more significant results from text pattern analysis in the second movement than in the first. Table 3 shows five consecutive lines of text which are constructed in the same way. With the octatonic melodic content and a generally weak tonal center, this sort of text emphasis can be a source of stability for the singer.

³¹ Paterson, e-mail message to author, April 7, 2016.

Table 3. Text pattern analysis of Movement 2, “Henry folutch”

Gibberish Word Before	English Word	Gibberish Word After
	Henry	folutch
meitcha	who	
	officers	ispelec
	cruel	otauten
	capture	mancisea
	captured	iturnp
	blood	hreerdi
Ancipart	glass	
cemaeve	armed	
varialla	approaching	
	invasion	essiGen
	people	toxless
odomentr	power	
higoopa	666	

III. youJusto nicely

The third movement, “youJusto nicely,” spends more time in a major tonality than any of the other movements and may be analyzed in modified strophic form with a twelve-measure introduction and a coda. This is first established with the vocal introduction, which is answered with a wistful piano figure in the right hand in mm. 4, 10-11 which could be interpreted to represent something, such as a reaction by another person. Measures 1 through 12 appear to be an introduction characterized by B Major and B Mixolydian. The first section proper, mm. 13-16, continues in B but is more closely related to the B harmonic minor scale. This section works through a regressive series of chords (see Ex. 5a), with G major in m. 13, F-sharp major in m. 14, and E minor in m. 15, finishing up with a dominant in m. 16. This appears to be a half cadence, but the root transitions a half-step up to the next tonic, serving as a pivot chord for the next key of G major, in which it functions as a major subtonic. The new section, mm. 17-22, is characterized by featuring only tones in the G major tonic triad and its dynamic and pitch-based build to a climax in m. 20 on the highest pitch of the entire cycle, a G4, on “Feervid LENGTH.” This climax appears in m. 20 of the 43-measure movement, even before the

halfway point. The actor could attribute the peculiarity of such an early climax to the subject matter of the movement.

Ex. 5a: *CAPTCHA*, mvt. 3, mm. 13-15

Più mosso, ♩ = ca. 72

f

E - rec-the-um a-vo-i-o-nal Fil - la-ti-o found-ed

f

15

sfun - clu gi - gan - tic pects - OR

Ex. 5b: *CAPTCHA*, mvt. 3, mm. 24-26

disappointed

mf

25

ap-pears Flack-l ap-pears Flack-l ap-pears

mp

shake head
look down (optional)

mf

26

Flack-l Im-prop-er e

After the climax, the piano plays a triumphant, harp-like arpeggiated figure in concert with the bravado inherent in the vocal line. From there, the entire quality of the piece shifts, with the voice sequencing downward chromatically over a regression of fully-diminished seventh chords in mm. 24-26. This appears to be the material from mm. 13-15 but modified to set a different emotion over “appears Flack!” (see Ex. 5b). If the performer chooses the /æ/ vowel here, there would be a stark contrast to the darker vowels necessary due to vocal range in the parallel section. Measure 27 features a stark dissonance in the accompaniment, setting a dyad marked by secundal harmony, with a harmonic minor second interval sounded in multiple octaves. The sound is a generally uncomfortable one and, combined with the optional “shake head / look down” stage direction, could represent a disappointment. This

sort of figure appears again in m. 29, obscuring tonality to allow for a short interlude in D from mm. 28-30. Measure 30 features the same sort of dominant-to-subtonic pivot chord featured in m. 16, followed by a passage in B-flat major (one half-step flatter than the beginning of the movement) from mm. 31-36 that parallels the G major passage which leads to the vocal climax. This iteration does not feature a high tonic but instead contains a coda section which features a straightforward dominant seventh chord in m. 37-38 whose strong, conventional resolution coincides with “bring towels,” one of the only instances in which two English words are used together in a phrase. This moment of relative clarity leads to a return of the harp-like piano arpeggiations and final chords, all using the pitches from the tonic triad, B-flat major.

Text pattern analysis shows a great deal of inconsistency with the exception of the four consecutive lines leading up to the climax in m. 20, in which the text is set in a pattern of gibberish-to-real words (see Table 4). The gibberish word “pectsOR” is musically set with articulation markings to divide the two syllables. This appears to obscure the pattern. However, each of the real words presented in the passage from mm. 12-19 have an articulation marking for emphasis to support the idea of pattern-based word stress. “Bring towels” at the end, naturally stands out as an exception, since it breaks the pattern set and repeated by the two lines preceding it in addition to breaking the convention of the entire cycle.

Table 4. Text pattern analysis of Movement 3, “youJusto nicely”

Gibberish Word Before	English Word	Gibberish Word After
youJusto	nicely	
	position,	patchedi
	Cherry	iscibili
yenvis	touching	
	Erectheum	avoional
Fillatio	founded	
sfunclu	gigantic	
pectsOR	weighty	
Feervid	LENGTH	
	Improper	ericsia
galord	short	
	consequence	veybord
WhenRus	comes	
riahot	face	
	bring towels*	

* exception: two English words

IV. Voix gustroor

The third movement ends with a passage full of tonal stability. The fourth movement, “Voix gustroor,” begins in the opposite way. The piano accompaniment opens with secunda dyads reminiscent of the third movement before launching into a series of disjunct intervals. The first beat of m. 2, with the expressive marking, “Hazy,” features three pairs of major seventh intervals, and the next four $\frac{1}{4}$ beats contain pairs of minor ninths, the same interval inverted with an octave (see Ex. 6). When the *accelerando* is added in m. 3, there is a buildup of two nearly-parallel voices in the piano that culminates in a single high B in m. 4, marked “Exhale.”

Ex. 6. *CAPTCHA*, mvt. 4, mm. 1-4

The musical score for Ex. 6, *CAPTCHA*, mvt. 4, mm. 1-4, is presented in two systems. The first system shows the piano part in the bass clef and the vocal line in the treble clef. The tempo is marked "Hazy, ♩ = ca. 72". The piano part begins with a "rubato p" marking and a "6" indicating a sextuplet. The vocal line is marked "M7 pairs" and "m9 pairs". The score includes an "accel." marking and a tempo change to "ca. 92". The piano part features a "3" marking and "m9 pairs". The score concludes with an "Exhale, ♩ = ca. 72" marking and dynamic markings "ff" and "mf".

Measures five through seven feature a series of chords from the whole-tone scale composed intervallically, predominantly featuring tritones, whose voices maintain a similar contour. Measure 8 is a rolled chord whose four lowest notes contain two pairs of tritones, a characteristic of both the piano part which precedes it and the chords which follow it. The highest pitch in the right hand of the piano is an F, the cue note for the vocalist to begin the A section.

The A section can be divided into multiple parts based on the relative tonality and character of the music. Measures 9-15 feature a similar quality to the introduction with multiple tritones in each piano chord while the vocal line utilizes pitches from the F whole-tone scale until m. 15. The piano chords feature a juxtaposition of whole-tone scales by mm. 13-15 in which the lower pitches are part of the E-flat whole tone scale and the higher pitches belong to the E whole tone scale. The vocal pitches in measure 15, the end of this segment, are no longer part of the F whole-tone scale but feature the same intervallic content as the repetitions of "blood hreerdi" in mm. 13-17 of the second movement. The next segment of the A section, mm. 16-18, is octatonic in the vocal line and anchored around a D, with a pedal A-flat in the

left hand of the piano outlining a tritone. This creates a highly dissonant quality. The right hand of the piano in this segment continues with the juxtaposition of whole-tone scales, creating intervallic harmony with the same ethereal quality as the sections preceding it.

There is considerable tonal relief beginning in m. 19, where the voice and piano settle into a G major triad on “harmonic nstryfl” - the first appearance of a word entirely comprised of letters to be sung individually. The tonality reverts to G major at “harmonic” in measures 21 and 23 after the voice and piano move chromatically on the collection of letters. After “harmonic,” which ends on a B, the letters create an unzipping effect (which Paterson refers to as a “dizzying effect”)³² in which every first letter in a set of two creates a line which rises by half-step and every second letter creates a similar line which falls by half-step. In this movement, the pattern is broken after a pair of consecutive notes reaches the interval of a tritone, resulting in a resolution. The piano accompaniment in mm. 19 and 23 features a strong chromatic descent to E-flat with the lower two voices moving in parallel fifths and m. 21 moves to a C dominant seventh chord. In both cases, the vocal line takes the third in each resulting chord due to the momentum built by either the upward or downward chromatic line sung on letters. Following this series of letters, mm. 24-27 outline major chords in a downward sequence by half-step. The section concludes with another series of letters, “wsxfolot,” handled similarly to the previous set of letters, with two concurrent lines and a pattern that ends after a tritone is sounded. Ex. 7 below displays the “dizzying” effect when the voice sings individual letters and the simultaneously descending parallel motion in the piano part. The dotted lines in the voice represent the upward and downward chromatic lines created by alternating notes and the solid lines in the piano part display the parallel fifths.

³² Robert Paterson, e-mail message to author, April 19, 2016.

Ex. 7. *CAPTCHA*, mvt. 4, mm. 23-24

The musical score for Ex. 7, *CAPTCHA*, mvt. 4, mm. 23-24, is presented in two systems. The top system shows the vocal line in a bass clef, starting at measure 23 with a triplet of eighth notes (G4, A4, B4). The lyrics are "mon-ic n - s - t - r - y - f - lied - er ri-ous - Mos". The piano accompaniment is shown in a grand staff (treble and bass clefs). The left hand plays a steady eighth-note bass line, while the right hand plays chords and moving lines. Dynamics are marked as *mf* and *f*. A "rit." marking is present above the vocal line. The tempo is marked as "ca. 66".

The B section, mm. 28-63, is some of the most tumultuous music in the cycle, reminiscent of the quality of the B and C sections of the second movement. In addition to disjunct intervallic content featuring many harmonic and melodic tritones, driving triplet rhythms, and accents on weak beats to obscure metric clarity, the time signature remains 4/4. This creates hemiolas between the voice and piano in which the vocal line is organized in simple meter while the piano insistently remains in compound meter. The vocal line is largely characterized by a series of CAPTCHAs or individual words within a CAPTCHA repeated three times (see Table 1). Amidst the chaotic figures in the right hand of the piano, the left hand of the piano often provides stability and pitch for the vocalist throughout this section. While not quite as highlighted as “bring towels” from the third movement, “shown pothead” in mm. 40-43 is the second appearance of two real words within one CAPTCHA. This is repeated for emphasis and builds dynamically until a written breath brings the piece to a momentary halt between mm. 43 and 44. There is no clear harmonic progression and no stark difference between the sections before and after the break. However, not long after, the vocal part is joined by the right hand of the piano rather than the left hand at m. 47-48, when the left hand plays an F major chord while the right hand plays F-sharp major. This shift of

convention highlights the bitonality occurring throughout the section and obscures the perception of major chords. But, it also elucidates the fully diminished seventh and half-diminished seventh chords under “cantsak ACTING” to follow in mm. 49-52. “Calumny” and “also,” separate in repetition though they belong to the same CAPTCHA, occur over a tonal center which is predominantly D-flat and features B-natural and D-natural on occasion from mm. 53-60. There is a transition out of this section in mm. 61-62, with the highest voice in the piano playing up the octatonic scale, culminating in a tritone followed by a three-octave E serving as a vocal cue in m. 63.

The resulting A' section begins at m. 64 with an expressive marking, “Dreamy,” mirroring “Languid” at m. 9. The vocal line is built using the octatonic scale, and the piano part features chords with multiple tritones, similar to the chords presented in the introduction and beginning of the A section. The resulting obscured tonality continues until m. 70-74, parallel to the material from mm. 19-23 with a variation in piano voicing and contour. A harmonic anchor of E-flat major appears rather than G major. Measure 73 features a slight break from previous conventions by having the voice jump an octave to fit a C dominant seventh chord, similar to the chord in m. 21 but approached differently. In doing so, he is singing an E pitch on the letter “e.” This could be used for an overt, or even diegetic interpretation. Measures 76-78 feature a major chord sequence similar to mm. 24-27, with the material in A major near the end, serving as an elaboration of mm. 77-78. During this final section, particularly in mm. 78, 80, and 82, the right hand of the piano features voicing reminiscent of mm. 19 and 23. In some cases, this appears almost identical in intervallic content.

Table 5. Text pattern analysis of Movement 4, “Voix gustroor”

Gibberish Word Before	English Word	Gibberish Word After
	Voix**	gustroor
	voice	niiions
	MUSICAL	allengus
	harmonic	nstryfl
	lieder	riousMos
irohom	songs	
	songs,	wsxfolot
	buglehorns	uldogne
	shown pothead*	
	cranial	cialArc
toIndit	conduct	
cantsak	ACTING	
	calumny	alsolo
	called	awspes
	Sinfonie	ngtinPe
	mezzo	rtsFUS
	Dreamland	ernowbt
	dream	sppoll

* exception: two English words

** exception: French instead of English

In addition to musical elements tying the movement together, text pattern analysis supports a parallel between the aforementioned “Languid” and “Dreamy” sections, which represent A and A’ in this analysis. The results of Table 5 show that the words are almost exclusively paired with the real word preceding the gibberish word in these sections. This comprises most of the movement. The findings show inconsistency in the B section, and this is another way the turbulent middle section contrasts with A and A’.

V. Secretary metadon

The fifth movement, “Secretary metadon,” is characterized by the tune presented in the introduction and its many returns. This presents a form which could be described as rondo-like. The A section begins in the first measure with the setting of the theme in the piano. The melody in the right hand and short punctuations on the beat in the left hand,

predominantly in B-flat harmonic minor, have chromatic alterations throughout. The break from the rhythmic sameness and four-measure phrasing of the introduction in mm. 8-10 and the accented figures such as in beat 4 of mm. 4, 11-14 could serve as movement, action, or intention cues for the actor before making his vocal entrance in m. 15. The interpretation may also be influenced by the stage direction provided at the entrance, “as if spreading gossip,” accompanied by a quiet dynamic to elicit whispering. The vocal line continues over the standard piano accompaniment in B-flat minor from mm. 15-22 with articulation markings such as accents and marcato in addition to particular text setting of syllables to imply a proper pronunciation.

The section from mm. 23-34 is short enough that it could be considered merely a departure from the theme of the A section, but it is different enough in content and style that it bears mentioning as its own section. This B section begins over a B-flat minor chord while the voice moves up the octatonic scale and obscures tonality. Measure 27 features a slight return to a functional line in B-flat minor, but the accompanying harmonies in the piano part do not support this. The part is characterized by its expressive marking, “nastily,” over the text “lawastty,” as if to suggest a cognate-based meaning. The G-sharp octatonic sequence on the text “Petsra has” in mm. 29-30 contains the same intervallic material beginning on the pitch where the last utterance finished. This is accompanied by a series of diminished chords, building tension of a dire nature despite traversing only an octave. The resulting “a tempo” section in mm. 31-34 features parallel tritones as a foundation rather than thirds before transitioning back to the material from the A section. A B-flat is present through mm. 31-32 and the tritone interval appears a major second lower in mm. 33-34. The chords function somewhat like tonic and subtonic before resolving to more traditional harmony in m. 35 with B-flat minor returning as the tonic. The entire section from the beginning through m. 42 could

be seen as a complete A section because B-flat is omnipresent as a tonal center. However, there is such a distinct departure within mm. 23-34 that it could be useful to the actor as material of a different character. The text “heckdin soul” is set to the melody from the introduction in mm. 35-42, leading to transitional material in mm. 42-44. This is similar to the syncopated transitional material of mm. 8-10, before arriving at Robert’s Interlude in m. 45.

Robert’s Interlude, titled by the expressive marking in m. 45, is in E-flat major and includes mm. 45-59. Nearly all of the CAPTCHAs in this section include the name “Robert” in some way, referring to the composer’s name. The right hand of the piano in m. 47 sets up the same kind of “unzipping” figure which occurs around letters in the fourth movement, setting up the return of words which follow this pattern in measures 49 and 51. There is a variation in the intervallic content of the piano chords, with the two lowest voices moving in parallel tritones in m. 47 and parallel perfect fourths in mm. 49 and 51. This is a slight departure from the parallel fifths in the fourth movement but clearly functioning similarly. The direction to slur letters together for “Wslykmi” in m. 51 creates the need to interpret it differently from its first appearance in m. 49, despite the notes remaining the same. This section and the one to follow are the only ones which are given proper names. This is also one of the only sections to repeat a CAPTCHA after another has been used, with some of the “Robert” CAPTCHAs arranged interchangeably. The “a tempo” in mm. 57-59 utilizes a tritone leap in the voice to a B-natural. This is the flat-second scale degree seen numerous times in the previous octatonic section and it transitions back to a B-flat tonality for the next section.

The next section, “The Bells of ranentri,” takes place from mm. 60-69. The piano part emulates bells in a minimalist fashion, repeating the same material. There are strong rhythmic emphases on beats one and three because of the entrances of the right and left hand of the piano, respectively. In the vocal line, the CAPTCHAs “SEVEN atthats” and “respecting

tusMore” are juxtaposed to read “respecting SEVEN atthats” in mm. 66-67 and 68-69, the only instances in the entire cycle in which an incomplete CAPTCHA is interrupted by another. The delivery of the text is not open to much interpretation when observing the “declamatory” marking at the vocal entrance in m. 61 and the specific articulations given. However, where that delivery fits into the actor’s concept of the piece is where the freedom lies. The final note of the section is the only change in pitch for the accompaniment in which the left hand of the piano plays an A, the leading tone of B-flat, on beat 3 of m. 69. Paired with the same “bell” chord played in the right hand throughout this section and an F in the vocal part, there is a dominant chord function which leads back to the final return of the A section.

The opening piano theme returns in measure 70 and continues to the end, with the vocal part singing “uropley,” to be pronounced like “you reply,” in four groups of three. The first grouping, mm. 72-73, includes a leap of a tritone. The second grouping, mm. 74-75, includes a leap of a major sixth. Measures 76-77 are the same as measures 72-73, which sets up mm. 78-79, with both a tritone leap and a major sixth leap above that. This reaches a significantly higher vocal register than anywhere else in this section. Measure 80 marks the return of the syncopated transitional material presented earlier in measures 8 and 42 and is interrupted by the thirteenth “uropley,” finally followed by its paired real word, “END.”

Table 6, the text pattern analysis of the fifth movement, shows a substantial amount of consistency in two sections. The first stanza – the first four CAPTCHAs -- are all approached with the same word-to-gibberish pattern. Additionally, later in the piece, in Robert’s Interlude and the stanza before it, nearly all CAPTCHAs follow a gibberish-to-word pattern. The only outlier in that section is “apparently cDumber,” which already stands out tonally and for its association with the word “dumber.” The establishment of a pattern before this CAPTCHA helps to highlight it as if it was a punchline to a joke.

Table 6. Text pattern analysis of Movement 5, “Secretary metadon”

Gibberish Word Before	English Word	Gibberish Word After
	Secretary	metadon
	she	cartell
	AND	usedmeni
	admitted	splense
	WILLIAM	workorse
octache	barbarous	
rapedat	treason	
	thou	Crustop
lawastty	REBECCA	
courcte	expression	
	operations	naturE
	tiresome	ostpter
Petsra	has	
orsrans	charcoal	
Pesistri	charcoal	
heckdin	soul	
orypeue	Robert	
Wslykmi	Robert	
oongled	ROBERT	
idDirct	ROBERT	
	apparently	cDumber
Inviews	thee	
ranentri	pronounces	
	SEVEN	atthats
	respecting	tusMore
uropley	END.	

PART II: Application of Interpretation

Chapter 4: Theatrical Perspectives

Before an actor can create an interpretation of *CAPTCHA*, he must analyze all that is given within the music and its text. Because almost half of the words do not fit within a given language, the pronunciation of vowels and syllables must be decided upon prior to performance. The choosing of phonemes plays an important role in the process of interpretation, since vowels and consonants carry different inherent qualities. Separate from the musical presentation of the text, this chapter will begin with phonetics-based strategies for exploring text, such as those employed by Kristin Linklater, and look at the piece on a micro-level.

The actor must also view the work on a macro-level and ask a few important, overarching questions about its interpretation. What role will the performer play, and to what degree of importance is the overt display of his interpretation? What did the composer mean in his usage of language? Are the words to be expressed by a single character, individual characters, or no characters at all? Perhaps they are to be sung by the actor himself as a person who recognizes the absurdity of what he is saying, and is making commentary on it.. Approaching a piece with a mind for these different possibilities will yield drastically different results for performance. The following sections will explore the applicable philosophies of realistic and modernistic acting, exemplified by Konstantin Stanislavski and Bertolt Brecht, respectively, as they may be applied to conventional recital performance. Further consideration will be given to postmodern theatre as a point of comparison and possible adaptation.

Linklater

The majority of the gibberish words throughout *CAPTCHA* come with some interpretive choices on the part of the performer. Syllabic stress may be more or less intuitive in the way the texts are set to music, but in most cases, the pronunciation regarding vowel and consonant choices are at the actor's discretion. Although some intentional wordplay was surely included in the intentional arrangement of CAPTCHAs, the text is not poetry and therefore does not fit a particular metric foundation, nor is there any basis for pronunciation given other than the freedoms included in Paterson's performance notes. Because the piece is unique, it appears that there is no universal strategy when questions about pronunciation arise in the music but to follow metric stress and articulation markings when given. When little information is given, the performer is left to make decisions, arbitrary or otherwise.

There is incredible power within the words themselves that is not always realized. In the case of Shakespeare performance, systems of phonetics-based training are employed to bring out the latent expression hidden within the text itself. One of the major figures to employ this training is Kristin Linklater, a voice and acting teacher whose work uses "the *voice* as an instrument of communication distinct from that of *speech*."³³ The result is a kinesthetic awareness adapted from psychologist Antonio Damasio called "core consciousness," initiating a re-conditioning which makes the quality of text communication inseparable from the feeling in the body.³⁴

Linklater's work is applied to entire roles, but it begins with sounds as they are expressed through their building blocks: vowels and consonants. She writes, "Consonants and

³³ Kristin Linklater, *Freeing the Natural Voice: Imagery and Art in the Practice of Voice and Language* (London: Nick Hern Books, 2006), 343.

³⁴ Linklater, *Freeing the Natural Voice*, 66.

vowels are sensory agents of speech communication information on sound waves which vary subliminal messages from speaker to listener.”³⁵ The basis of this statement is to say that the pronunciation of a word, an element which is flexible in *CAPTCHA*, can directly impact an audience without a thought given to character or meaning. The choice of certain vowels and consonants are effective on a subconscious level, making the intentional choices on the part of the actor all the more important. Linklater speaks of “the balanced quartet of emotion, intellect, body, and voice.” If any of these is significantly stronger than the others, such as a strong vocalist who does not adequately physicalize or truthfully deliver the material, the imbalance creates a disconnect from the ideally communicative performance at hand.³⁶ These elements are inseparable and serve as the foundation for a versatile instrument capable of growth. “As long as there is a sensitive connection between the mind and the organs of speech, the natural ability develops as the mind develops.”³⁷

Before the multitude of exercises presented in Linklater’s book, *Freeing Shakespeare’s Voice*, she posits a redefinition of the process by which reading aloud is executed. She writes that habitual reading is the process of “printed word → eye → frontal lobe → thinking about → spoken about” but that it should be re-patterned to be “printed word → eye → image → breath → feeling → experience/memory/emotion → sound → spoken word. In the second process, the spoken word *reveals* rather than *describes* the inner content. It is *the word made flesh* rather than *the word as symbol*.”³⁸ The exercises presented in the book are designed to re-

³⁵ Kristin Linklater, *Freeing Shakespeare’s Voice: The Actor’s Guide to Talking the Text* (New York: Theatre Communications Group, 1992), 14.

³⁶ Linklater, *Freeing the Natural Voice*, 9-10.

³⁷ *Ibid.*, 295.

³⁸ Linklater, *Freeing Shakespeare’s Voice*, 34.

condition the actor to consider the entire process and to be aware of the different stages in which a word is read from a source, then assimilated and reproduced in the body. This correlates with the idea that text is not just a form of verbal communication, but its story is told through an embodiment of the text's inherent meaning in addition to the words themselves. Linklater adds:

Words have become largely utilitarian in everyday life and are conditioned to run from the speech cortex straight to the mouth. They seldom pick up an emotional charge except under extreme provocation. Passionate rage, joy, love, or grief can break through convention and spark the ignition of visceral truth. But there is a vast territory of expression between utility and passion that can profit from visceral connection without waiting for extremity.³⁹

The question is, then, without inherent meaning, how can the gibberish text of *CAPTCHA* be used to tell a story? The answer, in part, lies in the phonemes themselves. Linklater's most fundamental exercises involve an exploratory process through which the effects and associations of vowels and consonants are discovered. The exercises require repetition with questions and associations. Certain vowels are ascribed a color, an object, or an emotion as an association, accompanied by directions regarding what to notice about each sound and the differences between them. The consonants are treated similarly, and with specific directions for each type of consonant. Vowels and consonants are combined to form syllables, and a series of syllables are presented in a chart with an associated body part for each.⁴⁰ This is significantly different from an actor-centric production, as Linklater advises, "Try not to impose ideas on the sounds—let THEM tell YOU who and what they are."⁴¹

³⁹ Linklater, *Freeing the Natural Voice*, 328.

⁴⁰ Linklater, *Freeing Shakespeare's Voice*, 16-25.

⁴¹ *Ibid.*, 21.

After training to associate vowels and consonants with particular feelings, they can be intentionally applied in context. “Most theatre performances make use of the voice in some way, though there are certainly theatre pieces which are, more or less, or completely, without words...The ultimate aim of this work is for the voice to be supremely well prepared to translate the written text of a play into spoken language. The actor works on voice and speech as a collaborator in the service of the play.”⁴² (Link Nat 343) While Linklater may be referencing pieces of theatre predominantly featuring silence, the same principle may be applied to a piece which features words which are not real. She continues:

The etymological root of the word *text* is the Latin *texere*, which means ‘to weave’ or ‘to fabricate.’... A text is a tapestry of ideas woven with words. The actor must translate the written tapestry into a spoken story through voice, and the art of acting lies in the actor’s ability to intuit the feeling behind the idea that is expressed in words. The actor’s vocal craft will determine the level of intuitive skill with which s/he can probe the text for the originating feelings.⁴³

In the case of vocal music, the actor has music to consider in addition to the text. For *CAPTCHA*, in particular, the challenge comes in the form of choosing pronunciation for the gibberish words based on the character of the music and the possibilities provided by the text.

This freedom to choose how many words are pronounced, given to the performer by the composer, is not one to be taken lightly. The choices made should be reflective of an intentional plan or interpretation of the text and music. Otherwise, the piece will be little more than an odd smattering of syllables. Linklater’s studies can be useful in taking the words presented and exploring them in multiple ways, leading to the most effective choices. Linklater suggests to “expand your consciousness into a physical exploration of vowels and consonants

⁴² Linklater, *Freeing the Natural Voice*, 343.

⁴³ Ibid.

as vital components of words rather than as a discrete discipline.”⁴⁴ Experimenting with multiple possibilities is paramount to the development of a cohesive performance. Linklater writes, “when you let the words play you they do half of your acting for you. That is true—but the other half must be fully supportive of the words, or the words will only find a half-life. The meaning, emotion, action, character information that you absorb when you approach the text in the way that I have outlined is, to a large extent, the actor or director’s homework.”⁴⁵

Linklater is not alone in this line of phonetics-based work for actors and singers. For example, Louis Colaianni advocates the use of objects such as pillows to help discover the finer elements of vowel and consonant sounds as well as the differences between them. Colaianni writes, “In combination with the voice work that I teach, phonetics actually helps to open and develop the actors' voices. I don’t teach standard speech—explorations with phonetics help my students find maximum intelligibility, openness, and vocal freedom.”⁴⁶ Ideally, the unintelligible may become more intelligible by employing phonetic-based strategies. Regardless of whether or not the words have inherent meaning, Linklater’s statement holds true: “I would emphasize that communication through speech involves not only a speaker but also a hearer. If, therefore, what is said is incomprehensible, however satisfying the speaker finds the saying of it, it fails as communication.”⁴⁷ The actor’s ability to present something comprehensible to the audience is key to an effective performance. Virgil Thomson adds, “An obscure verbal text—and believe me both poets and prophets love to hide their meanings, or themselves to hide behind a mass of meanings—an obscure text is

⁴⁴ Linklater, *Freeing the Natural Voice*, 319.

⁴⁵ Linklater, *Freeing Shakespeare’s Voice*, 185.

⁴⁶ Louis Colaianni, *The Joy of Phonetics and Accents* (New York: Drama Publishers, 1994), viii.

⁴⁷ Linklater, *Freeing the Natural Voice*, 296.

best transmitted by its own words clearly projected. Certainly any willful obscurity on the literary side is not helped by faulty enunciation.”⁴⁸ While text-based work brings focus back to the material and its text, it is the actor’s ability to interpret the material adeptly and present it clearly which creates moving art. Lewis Thomas writes:

In order to get a language really to work from the outset, as a means of human communication by speech, it must have been technically obligatory to make, first off, the words needed to express the feelings aroused by things, particularly living things in the world. Naming as a taxonomic problem could come later and would take care of itself. But for ideas to begin flowing in and out of minds, so that the deepest indispensability of language could take hold, the feelings would have to come first into speech, and that sense of the roots must persist like genes in all the words to follow.⁴⁹

Focusing on vowel and consonant sounds in words may lead to the development of larger ideas. What an actor does with these ideas in his presentation of the material is not as settled, however, since there are many different approaches to consider for performance.

Stanislavski and Realistic Acting

Perhaps the most straightforward interpretive approach to *CAPTCHA* is that of realism, which places an emphasis on the actor’s own interpretation. As we have discussed, Paterson leaves the opportunities for a wide range of expression open in his omission of markings or suggestions of a particular narrative. But a narrative *is* to be created and imposed upon the work (and, in turn, the audience) to yield a compelling performance as the actor envisions it. One of the major challenges here is in the interpretation of the unintelligible words. The lack of English syntax also poses a challenge, lowering the likelihood that the communication is occurring purely in the English language as we know it. As the composer

⁴⁸ Virgil Thomson, *Music With Words: A Composer’s View* (New Haven, CT: Yale University Press, 1989), 16.

⁴⁹ Lewis Thomas, *Et Cetera, Et Cetera: Notes of a Word-Watcher* (New York: Welcome Rain, 2000), quoted in Linklater, *Freeing Shakespeare’s Voice*, 12.

suggests in his Performance Notes, perhaps this language is one of the future. Regardless, under the properties of realism, it must convey a state of being in which the actor embodies a character.

The realistic approach to acting as popularized in large part by Stanislavski is how *CAPTCHA* is intended to be performed. In the piece's Program Notes, Paterson writes: "Each song uses a few key words (the few that are actually real words and phrases) as a springboard. I attempt to phonetically interpret words and phrases that don't make sense, infusing emotion where none exists. Ultimately, my goal is to create an emotionally moving experience, despite the nonsensical nature of the words."⁵⁰ Additionally, in an e-mail correspondence with the author, Paterson writes: "What was most interesting to me in creating this cycle was the concept of the singer being highly emotional, but with the cognitive dissonance created when the audience can't understand the words since they are mostly gibberish. This would mean that the singer would have to read emotion into the words, where none exists, and this could be highlighted by the way the words are set: fast, slow, tessitura, etc."⁵¹ In the composer's vision, the actor would infuse the meaningless phrases with emotion via subtext and use the various facets of the composition to communicate. This infusion of emotion directly relates to the idea of emotional memory in Stanislavski's system.

Konstantin Stanislavski is one of the progenitors of realistic theatre acting Konstantin Stanislavski is and the "System" attributed to him is widely regarded as one of the most important developments in the history of acting, either as an accepted practice or as a point of departure. Stanislavski System teacher Sonia Moore writes, "An actor must remember that his reason for being on stage is to convey what he does and why he does it at a given

⁵⁰ Paterson, *CAPTCHA*, Program Notes.

⁵¹ Robert Paterson, e-mail message to author, April 7, 2016.

moment.”⁵² This principle is central to this system of realistic acting. What is required of the actor is to employ conscious strategies to tap into the subconscious, performing a fully integrated psychophysical process. Multiple processes contribute to creating effective, believable, and realistic theatre.

When considering the myriad of possibilities before him or her, an actor uses the “magic if” to pose and answer questions about who a character is and what they would do under certain circumstances. The actor can pose a question to himself about how a character would react to hypothetical or actual plot points to truly know a character and ensure that character has continuity and clarity for the purpose of producing truth. It is important that truth, in this case, is related to “stage truth” and believability presented on stage. As Sonia Moore writes, “To believe, on stage, does not mean that an actor must practice self-hypnosis or force himself to have hallucinations. An actor who believes that he is King Lear is emotionally ill. Belief means that an actor treats things or persons as if they were what he wants the audience to believe what they are.”⁵³

One of the core values of the System is the development of an actor’s emotional memory, which is crucial in the production of “stage truth.” Emotional memory refers to the range of emotions which an actor stores long after first experiencing them for the purpose of accessing a particular one when it is required for a situation on stage. Sonia Moore writes, “The actor is capable of stirring a needed emotion within himself only because he has often experienced an analogous emotion in his own life. Every experience in life leaves a trace on our central nervous system, and thus the nerves which participate in a given experience

⁵² Sonia Moore, *The Stanislavski System: The Professional Training of an Actor* (London: Penguin, 1985), 46.

⁵³ *Ibid.*, 33.

become more sensitive to such a stimulus.”⁵⁴ This sort of conditioning and habituation comes from repeated, conscious use.

In consideration of the playwright, Stanislavski advocated the identification of a “super-objective,” or the main idea the author intended for the character, as well as an actor’s “through line of actions” which contribute to the character’s execution of his or her purpose within the super-objective.⁵⁵ This logical, consecutive organization of actions, ideas, and emotions helps to achieve believability by way of consistency. The super-objective is the goal of the character which helps to organize the events and objectives present in the through line of actions, split up into units called ‘beats’. Through careful consideration of the entire world in which the work is set, an actor can construct and adhere to an appropriate super-objective which allows the character to live realistically within it.

Part of the magic of this piece is the transformation of computer-generated text into at least semi-intelligible speech which can communicate emotions. A committed performance through emotional connectedness and appropriate accompanying gestures can conjure believability for a seemingly broken but perhaps merely foreign or futuristic language.

Brecht and the Modernist Approach

Fresh interpretations are the lifeblood of repertoire. While *CAPTCHA* was generally conceived to be performed within the sphere of realistic acting, another possibility exists outside of it. The language in *CAPTCHA* is broken when compared with English. Rather than making intelligibility out of the unintelligible, what if the actor were to embrace the nonsense

⁵⁴ Moore, 42.

⁵⁵ Ibid., 49-50.

and make commentary on it? A more modernist approach in the style of Bertolt Brecht would interpolate this possibility in a way which Stanislavski may not have.

Bertolt Brecht was a director whose innovations progressed from realistic theatre into a more conscious zone in which characters opt to *embody* less and *perform* more. An added degree of separation and transparency allowed the audience to digest an expressive, emotional performance without nearly as much potential for subliminal messaging. A “Brechtian” approach would be to tell the character’s story as oneself, opening the wide range of possibilities for commentary upon that story. The actor sheds the illusion that he or she is actually the character in body and mind. If one were to approach *CAPTCHA* in this way, one would endorse the inherent nonsensical qualities of the randomly generated CAPTCHA texts and present them as such, rather than transform them into a dramatic narrative.

Brecht was a director who learned about his vision through the various shows he directed and co-wrote. Stanislavski’s system is actor-centric and puts a large emphasis on the actor’s role in realizing the meaning of the piece. Brecht, on the other hand, claimed that there should be more of a focus on the playwright, with the actors serving as a medium for the playwright’s intentions and the director’s vision. The result was more of a neutral ground between actor and director where power had previously been shifted toward the actor. In a criticism of Stanislavski, Brecht writes,

Stanislavsky [sic] puts forward a series of means – a complete system – by which what he calls ‘creative mood’ can repeatedly be manufactured afresh at every performance. For the actor cannot usually manage to feel for very long on end that he is really the other person; he soon gets exhausted and begins just to copy various superficialities of the other person’s speech and hearing, whereupon the effect on the public drops off alarmingly.⁵⁶

⁵⁶ John Willett, ed. and trans., *Brecht on Theatre: The Development of an Aesthetic* (New York: Hill and Wang, 1964), 93.

Brecht felt that the developments of the Western theatre were inconsistent, presenting reality through the false means by which it was achieved; therefore, it could not be maintained. His conventions arose from a feeling of oppression concerning political theatre in which an audience was baited towards connecting with characters in a certain way and were, therefore, being controlled by the state. John Rouse writes, “The Brechtian theatre’s most fundamental principle is its commitment to social change.”⁵⁷ Brecht presented human nature as changeable by focusing on the relationships between characters rather than the characters themselves.

As Richard Brestoff writes, “he, therefore, required of his actors a style of performance that could suggest different and better futures for their characters. To do this, the actor creates a distance between himself and his part so that he can comment on it.”⁵⁸ This distancing from a singular interpretation did not encourage an audience to have an identification with a character in a situation. Instead, it directed spectators to consider situations less idly and more actively, challenging the suspension of disbelief inherent in realistic acting. The major technique utilized in this refocusing was a concept he developed out of observing Chinese actors which he called *Verfremdungseffekt*. This effect, sometimes translated as “alienation effect,” is designed to sever the subconscious link an audience might develop with a character which events on stage would normally cultivate. With the actor taking a step away from realistic theatre, an audience may be reminded that they are watching a show and being entertained rather than manipulated into feeling a particular way. “Brecht called on all the resources of the theater to keep the audience aware of its presence in a theater.”⁵⁹ The effect

⁵⁷ John Rouse, “Brecht and the Contradictory Actor,” in *Acting (Re)Considered: A Theoretical and Practical Guide*, 2nd edition, ed. Phillip B. Zarrilli (London: Routledge, 2002), 249.

⁵⁸ Richard Brestoff, *The Great Acting Teachers and Their Methods* (Lyme, NH: Smith and Kraus, 1995), 152.

⁵⁹ *Ibid.*, 149.

can manifest itself in many ways, including self-referential commentary from the performer in which he or she may “break the fourth wall,” stage effects designed to bring attention to themselves, or the “social gest,” a significant gesture designed to call attention to the distribution of social status or power in a shocking way.⁶⁰ This eschewing of traditional theatrical conventions kept the focus on what was happening as opposed to a subconscious identification on the part of the audience or manipulation on the part of the theatre. Brecht acknowledged that this change could be perceived as “coldness,” but held to his principles and clarified this in writing: “The alienation effect intervenes, not in the form of absence of emotion, but in the form of emotions which need not correspond to those of the character portrayed.”⁶¹ He argued that an actor physicalizing himself as the character he portrays with conjured emotions does not necessarily inspire the emotional transference the actor has intended; instead, the effect could be properly communicated through effective stagecraft. On the matter of seeming unnatural on stage, Brecht writes, “The alienation effect does not in any way demand an unnatural way of acting...On the contrary, the achievement of an A-effect absolutely depends on lightness and naturalness of performance.”⁶² Using this effect, the actor does not create a realistic portrayal of a single character but uses his or her energies to bring awareness to the entire situation on stage and comments on it in its entirety.

Brecht’s process is divided into three distinct phases. The first phase is to communicate the directorial staff’s plan to the actors so they may completely familiarize themselves with it and become able to replicate its foundational ideas. Brecht had extensive

⁶⁰ Bogad, L.M., “Theory: Alienation Effect,” <http://beautifultrouble.org/theory/alienation-effect> (accessed April 21, 2016).

⁶¹ Willett, 94.

⁶² *Ibid.*, 95.

ideas regarding physicality on the stage, though he stopped short of treating actors as puppets by allowing them to move naturally while they explored the script. His second phase may seem like somewhat of a departure from his system, since it encourages the actor to discover how a character would react to the situations presented on stage, much like Stanislavski's process of asking questions via the "magic if," but with attention to reaction rather than action and what a character does, rather than what he or she is. As Brestoff writes, "Brecht knew what he did not want. He did not want the actor to empathize with, or transform into, the character. At least not in performance."⁶³ Therefore, the third and most distinctly Brechtian phase is to take an outside perspective informed by the second phase, allowing the actor to comment on the situation with an insider's knowledge, thus establishing the *Verfremdungseffekt*. The result is, ideally, a well-informed piece of theatre which is both effective and transparent in its communication of ideas. Philip Auslander writes, "Brecht privileges the actor over the character, but for a different reason than Stanislavsky: in order that the actor's commentary on the character be meaningful to the audience, the actor must be present as herself as well as in character and her own persona must carry greater authority than the role."⁶⁴

There is a variety of celebrated acting methods and strategies at our disposal today, and *CAPTCHA* is split into five movements which may be interpreted in different ways both within the individual movements and between them. Brestoff writes, "It is an easy trap to fall into, to believe that Stanislavski's and Brecht's methods are mutually exclusive. Many Stanislavski-trained actors claim great benefits from using Brechtian elements in their work, and many Brechtian actors have found great value in some of Stanislavski's techniques. These

⁶³ Brestoff, 150.

⁶⁴ Philip Auslander, "Just Be Your Self," in Zarrilli, 56.

two methods need not be antagonistic, although Brecht might prefer it if they were.”⁶⁵ *CAPTCHA*, as a five-movement cycle, may be interpreted as self-referential in the first movement to set up the awareness of the absurdity involved in making sense of the inherently meaningless, with the actor fully embodying characters and moods in later movements. Another possibility would be to fully embody and emote texts but engage in self-referential commentary upon their repeats. Conscious shifting between Brecht’s and Stanislavski’s ideas and attempting multiple strategies through the rehearsal process could produce a more dynamic performance and could serve to include the audience more by moving them from active to passive listeners at various points. Fortunately, there are few limits presented in the score regarding interpretation, and the material is full of facets to explore and develop in different ways.

Postmodern Considerations

These widely practiced acting styles are highly adaptable for use in a recital setting without changes or additions to be made to the source material. There are countless strategies which have been developed by individuals and groups that may have theoretical application to *CAPTCHA*, though not likely within its originally conceived recital setting. The piece is capable of being performed in different contexts, transcending the conventional medium by adding elements of acting styles conceived by later theorists. Stanislavski’s ideas provided a foundation for expansion and criticism which led to a multitude of interpretation. Many of these tend on the side of postmodernism, which shifts the source for interpretation from the performer to the director and audience. Dennis C. Beck writes, “Reflecting a more postmodern understanding of the ‘roles’ and tasks an actor performs, character becomes an

⁶⁵ Brestoff, 153.

interpreted effect, a consequence, a signifier assembled into a signified by the audience member and director rather than an actor-created individualized persona embodying a particular synthesis of personal affinities and psychological cues from a text.”⁶⁶

A task-based acting style employed by actors in The Wooster Group, a theatre troupe founded in the 1970s, adds to the realm of possibilities open to interpreting *CAPTCHA*. In a review of one of their performances, the group’s production is described as “a strangely twirling form, part mystery play and meditation on mortality, part an in-the-theater burlesque filled with tricks, gags, and numbers. And we never know which is which.”⁶⁷ Specific to their interactions, the actors of the group employ a task-based system of acting whose foundational principle is to perform assigned tasks, with the development of “character” appearing through the development of emotions while performing that task with the others involved. The acting takes place throughout the course of a performance in which the performer genuinely executes the task, making it virtually indecipherable to an audience whether the performers are acting or not. In his article on this style, Philip Auslander writes, “The Wooster Group’s personae occupy an ambiguous territory, neither ‘non-matrixed’ performing nor ‘characterization.’ This ambiguity was exemplified in *Hula* by the audience’s uncertainty as to whether it was watching a group of New York avant-garde performers doing hula dances for reasons of their own or whether there was, in fact, a kind of scenario being played out.”⁶⁸

⁶⁶ Dennis C. Beck, “Stanislavsky and Non-Realistic Theatre,” in *The Routledge Companion to Stanislavsky*, ed. R. Andrew White (London: Routledge, 2014), 223.

⁶⁷ Elinor Fuchs, *The Death of Character: Perspectives on Theater after Modernism* (Bloomington, IN: Indiana University Press, 1996), 184.

⁶⁸ Philip Auslander, “Task and Vision: Willem Dafoe in LSD,” in Zarrilli, 306.

In his time interviewing one of the founding Wooster Group actors, Willem Dafoe, Auslander learns that Dafoe “insists that the Group does not place the premium on believability demanded by realistic acting, with its implication that the actor is really experiencing the emotions he portrays.”⁶⁹ This idea creates a unique opportunity for liberation from any artificiality in the interpretive process. In Dafoe’s descriptions, there is a singular performer: himself. The characters he plays are not developed into anything more or less than extensions of himself. What takes place during a performance is not only a hyper-focus on the part of Dafoe for all elements involved, but also an awareness that he is an actor whose performance must “read” to an audience.⁷⁰ Fellow Wooster Group member Spencer Gray reflects on the divide between conflicting ideas: “acting” as active interpretation and “non-acting” as simply performing tasks. This is how he created his new method of acting from the space between, which he refers to as composing. This was once said to be “beyond Stanislavskian psychology that joined the actor and character, and Brechtian technique that separated the actor from the role, to use his own life as material for conceptual performance.”⁷¹

This methodology is presented here with a caveat. About Dafoe, Auslander mentions “The complexity of his physical and vocal scores,”⁷² which are not wholly present in *CAPTCHA*. A plot of action tasks to destabilize and mystify the act of performing in the formalized voice-piano recital medium would have to be imposed onto the work. But the inherent differences between the process of preparing and elaborating upon an existing piece

⁶⁹ Auslander, “Task and Vision,” 307.

⁷⁰ *Ibid.*, 307-8.

⁷¹ Bonnie Marranca, “The Wooster Group: A Dictionary of Ideas,” *Performing Arts Journal*, no. 74 (2003): 10-11.

⁷² Auslander, “Task and Vision,” 308.

with a collaborative pianist and the process of working daily with a developing show and multiple performers in a troupe - sometimes in the process of devising that show – may render this approach ineffective. There is great potential for making discoveries in *CAPTCHA*, especially in the formation of language and in the interplay between voice and piano. But task execution as a primary focus within this voice-piano medium without a physical plot would likely result in what is perceived to be a singer just singing, which the composer actively tried to avoid in his creation of the piece.

A step beyond Brecht and antithetical to this neo-naturalism is a more postmodern approach, an example of which can be seen in the work of Robert Wilson. Wilson further subjugated the performer to suit his needs regarding precision and timing so that the artistic work could speak freely and the audience could derive one of the multiple interpretations for itself. Displaying why something took place was not a chief concern of Wilson's as long as it was done precisely and was correctly presented visually and aurally according to his plan. He often juxtaposed interpretations which conflicted – for example, text which did not fit the situation presented visually – to serve his aims. In this case, the audience is tasked with far more interpretation than the performer and the performer must generate a presentation devoid of his or her interpretation.

Robert Wilson's approaches and development of an aesthetic went through multiple identifiable shifts in his career, beginning with silent operas and working through pieces which deconstructed and reconstructed language, either his own or others'. Source materials which are considered "Wilsonian" are typically those which decontextualize language using a highly formalized method. His libretto for Philip Glass' *Einstein on the Beach* and Gertrude Stein's *Doktor Faustus Lights the Lights* are examples of texts he directed. In an interview, Wilson said, "I prefer formalism in presenting a work because it creates more distance, more mental

space.”⁷³ While Wilson employed many techniques in his original pieces which created a mystique about his approach, his handling of canonical plays sheds a great deal of light on his process and dispelled many rumors about what his work entails. In fact, Elinor Fuchs remarked on his production of *Alceste* as “moving forward to a postmodern vision of culture and at the same time back perhaps towards an appreciation of older forms of theater.”⁷⁴ In essence, the way Wilson tells a story takes so much focus away from the story itself that the story is not universally recognizable, since it is being told many different ways simultaneously. This results in non-narrative theatre.⁷⁵

Wilson’s actors are not to be devoid of feeling or interpretation, but to show restraint in their presentation so that feeling can read through the body without being demonstrated in any one fashion too overtly.⁷⁶ In describing this foundation of postmodernism, Wilson himself said, “Theatre that imposes an interpretation is aesthetic fascism. By emptying out the meaning of a sentence, the text becomes full of meaning – or meanings. Actors, however, are trained to interpret; they feel it’s their responsibility to color the text and situation for the audience. So they reduce the possibilities of meaning.”⁷⁷ In addition to the resulting restrained, mundane delivery of text, gradual or natural linear transitions were removed in favor of stark contrasts between moments, and a physical plot was superimposed upon the scene. This often further

⁷³ Robert Wilson, “Robert Wilson and Umberto Eco: A Conversation,” *Performing Arts Journal* 15, no. 1 (1993): 93.

⁷⁴ Fuchs, 178.

⁷⁵ Wilson, 89.

⁷⁶ Ellen Halperin-Royer, “Robert Wilson and the Actor: Performing in *Danton’s Death*, in Zarrilli, 329.

⁷⁷ Arthur Holmgren, *The Theatre of Robert Wilson* (Cambridge: Cambridge University Press, 1996), 62.

decontextualized situations presented. One example is the second knee play in *Einstein on the Beach*, in which a radio advertisement is performed at a point in the “plot” which confounds its context from a linear standpoint and presents language in a way that inherently does not make sense based on the known meanings of the words said.⁷⁸

Facets of a Wilsonian interpretation may be extrapolated for use in *CAPTCHA*, but to envision a full performance which utilizes Wilson’s principles without drastically changing the source material is unrealistic at best. The disjunction of meaningful text in *CAPTCHA* is reminiscent of the principles identified in Wilson’s postmodern theatre. The cycle breaks the basic theatrical convention of speaking in one known language to communicate with the audience using discontinuity in syntax and meaning. But *CAPTCHA*’s source material is so formulaic in its presentation of two-word phrases that, at some point one would imagine that the formula would be manipulated or changed somehow by Wilson. The application of a postmodern concept roughly in the style of Wilson would undoubtedly have to involve a complete, specific physical plot which obscures any attempts the text and music make to connect with one another. Furthermore, the singer would be advised to deliver as matter-of-fact a performance as possible, so as not to direct the audience toward a particular interpretation, working under the premise that the absence of meaning is, in fact, full of meanings.⁷⁹ In direct comparison with realism and even modernism, a unified narrative from any perspective would have to be abandoned. In this situation, the audience would have to draw its own conclusions because the performer has purposely made the piece far less passively digestible.

⁷⁸ Holmgren, 69.

⁷⁹ *Ibid.*, 63.

A work like *CAPTCHA* can be performed under any of these premises, but choices must be conscious on the part of the performer. It is important to consider that techniques may be blended to create the most comprehensively effective performance possible. As Edward Arthur Lippman writes, “we do not respond to music in a compartmentalized way—here emotionally, there intellectually, another time synesthetically, and so on—nor does the composer write it, or the performer perform it, according to any single abstract mode of conception or comprehension.”⁸⁰ The unification of elements which may appeal to an audience in multiple ways simultaneously will prove to be the most effective.

⁸⁰ Edward Arthur Lippman, “Symbolism in Music,” *The Musical Quarterly*, no. 39 (1953): 574.

Chapter 5. Interpretive Strategies

To this point, we have surveyed *CAPTCHA* from numerous angles to determine effective performance strategies. We have discussed similar works in literature, strategies employed by the piece's original singers and composer, a detailed musical analysis, and a survey of applicable performance philosophies. With all of that information, a performer may still find it difficult to construct an effective interpretation. In this chapter, I will present some of my own strategies and synthesize the findings of the previous sections.

The music of *CAPTCHA* is full of potential for various stories to be told. A singer may decide to search for the narrative constructed by Paterson and tell the story "as it was intended." But such thinking is in contrast with the flexibility of the piece; the most exciting interpretations are those which come from the individual. Furthermore, the interpretation presented should be intentional and consistent rather than haphazard. That is not to say that an actor should choose between the realistic school of acting and a modernistic approach for the entire piece; rather, he should be aware of moments when a conscious shift would help his intentions to be presented more clearly.

Understanding the quality of the introduction is critical for the vocalist because the audience observes physical choices and interpretation well before the vocal part begins. In the case of a performance based in realistic acting, the vocalist may choose to set his physicality and emotional state in a way to imply that the music is an extension of his state of being. For example, the first movement begins with an introduction characterized by a G minor tonality, an indicated tempo of sixty beats per minute, and an expressive tempo that reads, "Dolente," meaning sorrowfully. An intentional choice to match or oppose that tendency is required of the vocalist even before his entrance at m. 5, where virtually the only phrase on the entire first page is "duchenp fled," repeating.

The exploration of pronunciation as it applies to the music is vital to this process. For example, at the very beginning of the first movement, “duchenp fled,” the actor must choose how “duchenp” is to be pronounced. Directly following a four-measure introduction which sets the possible mood of the movement, the major choice the actor faces is the choice between the “ch” consonant sound versus a “sh.” Based on the actor’s association and manifestation of those different consonant sounds, his choice can allow him to be more in concert with how he interprets the music and the situation. The “ch” sound is brisker in nature, which could inform his characterization in the moment whereas the “sh” is smoother. An example in which this work impacts the vowel can be found in the first line of the second movement, “Henry folutch,” in which the “u” of “folutch” could be performed a number of ways, including / Ü /, /u/, and / Λ /. Like in the first example, the mood of the music could influence the choice, as well as other factors related to interpretation.

Harmonic and melodic similarity may allow the actor to draw parallels between sections and form a narrative. One example lies in the first movement, between the context of “duchenp fled” in the A section and “alfari weeps,” which contains similar material in A’. The setting of “Devillu” syllables to split “Devill” and “u” on low pitches suggest a useful foundation point for building meaning, especially to reference why “alfari weeps,” if “alfari” is to be considered a noun. Allusions to a previous sections, if identified in performance, could serve to unify elements of the movement or the cycle as a whole.

In addition to observing context clues, an awareness of the organization of smaller sections and their momentum could determine where the vocalist shifts focus or intention. In the second movement, structural symmetry can translate to the rising and falling action of a narrative around the climax. The climax is profound for multiple reasons: the pervading F Lydian harmony is resolved to a tonic triad in A minor, the rhythmic diminution, the

dynamic buildup, and the dominant – the highest pitch sung in the movement – finally eclipses the pattern from tonic to subdominant.

The singer may also consider phrases that appear in musical sequence or as consequent and antecedent phrases. Even if the text pattern analysis results are inconsistent, identifying musical similarities can create analogous associations between known and gibberish words. For example, at the climax, similar rhythmic emphases are given to the phrases “people toxless” and “odometr power.” (See vertical grouping in Ex. 8.) The two phrases do not correspond in the text pattern table (see Table 3), but this could help the performer even more by making associations between the first and second word of each pair. One way to analyze this would be to say that if people are “toxless,” then “odometr” has power which would establish both of the first words as nouns. This could provide another method by which musical context is used to ascribe meaning to unknown texts.

Ex. 8: *CAPTCHA*, mvt. 2, mm. 56-59

The image displays a musical score for two systems. The first system (measures 56-57) features a vocal line in bass clef with lyrics "peo-ple — tox - less — o-do-". The piano accompaniment consists of a treble clef staff with a dense chordal texture and a bass clef staff with sustained octaves. Dynamics include *ff* and *f*. The second system (measures 58-59) features a vocal line in bass clef with lyrics "men - tr — pow - er — hi -". The piano accompaniment continues with similar textures. Dynamics include *mf* and *(mf)*. An arrow at the bottom left points to the right, indicating the continuation of the piece.

Paterson has described his requirements of the vocalist as minimal: to sing the correct notes and to be heard. It would be difficult to effectively present inherently positive rendition of the first movement because the tonality is predominantly minor and the music suggests a somber quality. But with specificity, such a storyline could become appropriate for “duchenp fled.” For example, if the performer decides that he is an evil warlord who caused someone or something called duchenp to flee (assuming the English meaning of the word “fled”), the piece could be reflective of his smug happiness in reference to his victory. That amount of specificity and imagination regarding the role of the singer in the piece is required to communicate emotions effectively. The pronunciation of “duchenp” may change based on this choice. In the case of this example, the hard, percussive “ch” may aid the performer in expressing smugness. A contrary, more weepy interpretation may feature an “sh” because of the sonic quality and physical feeling produced. Both may be correct if they are adhered to as conscious choices.

The various strategies Paterson prescribes in the Performance Notes and Program Notes are based on sonic elements of the words presented. In the Performance Notes, Paterson notes that the letters should be sung as pronounced in the alphabet.⁸¹ Otherwise, gibberish words can represent any part of speech since the syntax is nonexistent. Regardless of what part of speech the words represent, meanings can be ascribed to them in any number of ways. The “springboard” approach Paterson discusses in his Program Notes would encourage the actor to utilize cognates from the unintelligible speech and apply them to create a more easily-communicated idea. For example, “gilded” from the first movement is not a word, but aurally it is perceived no differently from “gilded” and may be interpreted

⁸¹ Paterson, *CAPTCHA*, Performance Notes.

as the latter. The lyric in the fifth movement, “AND usedmeni” can be performed to mean “and used many” and can act a transitional phrase to set up the next one. Paterson’s setting of these texts supports this as a choice. “Devillu noun” from the first movement is musically set to split the text to sound like “devil, you noun” and can be directly interpreted that way. The use of this cognate-based strategy is supported by the composer’s rare inclusion of a pronunciation for “uropley” at m. 72 of the fifth movement, as “you reply.” In other cases, unintelligible words can be split to shorten the unintelligible portion, as in the case of “ruralso Yea” in the first movement. Here, “rur” can be split from “also” to create a short phrase out of “also, yeah,” (or “also, yea”) leaving only “rur” as a brief moment of unintelligibility. A word may not exist but sound as though it could, such as “toxless” in the phrase “people toxless” in the second movement. By our known definitions, people cannot be “toxless,” but the root “tox” as used in “toxic” can serve to fill in meaning where it does not exist if it is displayed by the performer with conviction. Without any cognate-based translation present in a phrase, the performer may rely on the context of the surrounding real words to convey the unintelligible text clearly.

While there is a wide range of freedom in the piece, some movements have a stronger association with a particular narrative than others. For example, the third movement, “youJusto nicely,” is so laden with sexual innuendos that it would be difficult to construct another narrative so strong that the embedded references could be overlooked by an audience. The words “touching,” “Erectheum,” “gigantic,” “pectsOR,” “LENGTH,” and “flackl” are but a few examples which contribute to a fairly clear narrative in which a sexual climax occurs too soon. This is supported cleverly in the music and stage directions. Playing into these references, in turn, is an easier process than decontextualizing all of them.

Through his physicality or strong execution of subtext, two major tenets of Stanislavski's System, an actor could render the foreground meaning of the words (or lack thereof) virtually obsolete. In some cases, it is possible that the English word can be charged with so much subtext that it loses its original meaning or, in the portrayal of an imaginary language, it no longer has that meaning. For example, "Erectheum" from the third movement is a Greek temple which is part of the Acropolis, but since this is not common knowledge, the word could easily serve a different purpose in the larger context of the movement. While it typically takes more effort to decontextualize the known word than to ascribe meanings to unknown words, this is not always the case.

On the other hand, while Paterson's story about the genesis of the fourth movement (see Chapter 2) is supported by its lyrics, the connection with smoking marijuana is never expressly conveyed. The elements which suggest this narrative are present in the stage directions, expressive markings, and are embedded within the B section with the CAPTCHA, "shown pothead." But because the references in the fourth movement are less overt than those in the third movement, presenting a different interpretation might be easier.

Before learning about the Dutch bong company, my interpretation of the fourth movement was centered around a director. I used the CAPTCHA "cantsak ACTING" as one of my main inspirations for this choice, which was backed up by the many CAPTCHAs referring to music, including "MUSICAL alengus," "harmonic nstryfl," and "Sinfonie ngtinPe." In the A section, my character is lazily watching an actor's performance and offering criticism. In the tumultuous B section, he becomes frustrated with the actor in question, shouting criticisms. Toward the end of the B section, after shouting "calumny" (which could maintain its actual meaning or be interpreted as a cognate of clumsy in the way it is set), he repeats "alsolo" three times. I decided that this repetition could be used as a

homonym, carrying a different meaning between utterances. The first two times contain emphasis on an association with the word “also,” while the third time was delivered as a cognate with the phrase, “I’ll solo.” The A’ section would be a performance within the performance in which the director demonstrates, creating a connection between this section and the A section before it. In this interpretation the final chord, which introduces a different voicing than the section directly preceding it (see Ex. 9), represents the end of the performance within a performance. Despite now knowing about the genesis of the movement, I will continue to use this interpretation and once again stress that no single interpretation is more or less correct as long as the performer remains engaged and intentional.

Ex. 9: *CAPTCHA*, mvt. 4, mm. 81-84

The musical score for Ex. 9 consists of two staves: a vocal line in bass clef and a piano accompaniment. The vocal line begins at measure 81 with a piano (*p*) dynamic and a triplet of eighth notes. The lyrics "dream" and "sppoll" are written below the notes. The piano accompaniment features a complex texture with many notes, including triplets and a final chord marked *p (molto)*. Dynamics range from piano (*p*) to pianissimo (*pp*). A tempo marking "rit." is present, along with a note value "♩ = ca. 72, rit.".

In the above interpretation, I chose a CAPTCHA to serve as a foundation for my character. There was more than enough contextual support from the CAPTCHAs around it with the many allusions to music. But what I could not find in the phrase “Voix gustror,” I eventually found in “cantsak ACTING.” My physicality and attitude during the various sections then informed my pronunciation. As another example, in “Henry folutch” I decided

that the movement is about a shady character named Henry folutch. The movement begins with an octatonic passage and dissonant, low piano chords. This informs my pronunciation of his name to contain an /ʌ/ rather than a /u/ because the former is more rough while the latter is more sweet. The vowels chosen serve my aim of painting a rougher picture of this character.

The observance of form is important as well. In the first movement, “duchenp fled,” knowing that the piece is ABA’ can allow meaning between A and A’ to be parallel, much like in the above interpretation of the fourth movement. If the performer decides that “duchenp” is someone or something that flees, “alfari weeps” in the A’ section can be relatable. Perhaps “alfari weeps” because “duchenp fled.” These associations can make the flow of each movement stronger.

After deciding upon the flow of the story, the singer should decide from what perspective he intends to tell it. For example, using gestures to embody “Henry” in the second movement would utilize a realistic acting strategy. On the other hand, Blumberg’s reported take on the piece as a narrator who sometimes gets carried away displays the kind of distancing inherent in Brechtian theatre. A realistic strategy involves more overt physicality, but both can be effective in their communication of ideas. Ihasz’s inclusion of the audience in moments such as pointing out Roberts in “Robert’s interlude” breaks the fourth wall and employs a quality of shedding theatrical convention which is inherent in Brechtian theatre as well. Another example with innate potential for a Brechtian interpretation is the ending of the cycle, albeit abrupt, welcomes a diegetic interpretation in which the vocalist is aware that he is singing for the purpose of ending the piece. The important point to consider is that there is an even wider range of possibilities than what the

text means. The resulting performance differs based on the perspective from which the text is sung.

Another aspect comes into play when the actor is considering the super-objective as applied to the whole cycle: if he is performing one character throughout the five movements or five individual characters. The latter could result in five entirely different super-objectives, while the former could explore connective material between the movements for one overarching purpose. In order to unify the starkly contrasting material of the five movements, a strong super-objective is required. For example, the performer may decide that the entire piece is performed by a single character with aphasia, a communicative disorder characterized by an inability to find intended words and sometimes speak in gibberish, but not hinder intelligence.⁸² In this case, the super-objective would be, quite simply, to communicate. There is nothing to suggest that this interpretation would be invalid, but it would use the text in a different manner from the straightforward approaches suggested by Paterson. The realistic acting approach as applied to this super-objective would require the same sort of commitment in this scenario and would allow the performer more freedom in displaying the meanings and perceived meanings of the text, but would come with the added difficulty of detaching the audience's recognition of known text through persistence. A person with aphasia grasps at substitute words often far from those intended. Therefore, an actor could fit a different narrative of meanings contrary to those implied by cognates to provide a completely fresh take on the piece. This example shows the wide array of justifiable possibilities for subtext under the blanket of realistic acting.

⁸² American Speech-Language Hearing Association, "Aphasia," <http://www.asha.org/public/speech/disorders/Aphasia> (accessed April 24, 2016).

A more Brechtian approach would yield a significantly different performance when applied to *CAPTCHA*. Whereas an actor using the Stanislavski system might embody one or more characters in *CAPTCHA* and believably speak in a somewhat unknown language to the audience, an actor using Brecht's technique would be enabled to "break the fourth wall" and to comment on the nonsensical nature of his task. Rather than trying to transform the CAPTCHAs into a meaningful narrative, the actor could present them at face value, and perhaps even comment on his awareness of the communication barrier. In any case, the perceived meanings of each phrase would not necessarily be accompanied by an action to convey their meaning; if there were to be an accompanying gesture, it would likely be contrary, or at least decontextualized in some way. There would still be a wide variety of plausible interpretations available using this technique. Under Brecht's principles, the performer relinquishes some of his interpretive power in the performance. However, in the absence of a director or specific stage directions by the composer, it becomes the performer's job again to interpret the piece as a whole, as a director might. Because one of the main themes employed by Brecht was about social change, a narrative could comment on a relatable situation to the audience. For example, an individual movement or the entire work could be performed as a commentary on singers who only partially know their translations for a performance, highlighting the unintelligible words as satire and using them in a humorous context. If the fourth wall is already broken and the performer is actively aware that the audience is not understanding his speech but is still focused on his physicality, the resulting performance could be effective in a very different way.

While the texts of *CAPTCHA* do not give an explicit storyline, the many elements presented in Chapter 3 may be considered by an actor interested in making choices in connection with musical function. Expressive markings can serve as motivators not only for

the pianist playing, but also for the vocalist who uses the instrumental material to form his interpretation. Awareness of certain figures and intervals which occur in conjunction with both real and gibberish words can provide a basis for creating a narrative in the absence of a given narrative in the lyrics. The form of a piece and the recognition of patterns can inform the actor in creating poignant gestures and conjuring emotions which an audience may be able to recognize, as they are associated with similar musical material. Leonard B. Meyer writes: “the ‘character’ (designative meaning) of a piece of music will, when well-defined, influence our expectations about subsequent musical events (embodied meaning), just as our estimate of the character of an individual will influence our expectations about his behavior in a given set of circumstances.”⁸³

The possibilities in *CAPTCHA* are multitudinous and promote imaginative exploration on the part of the performer. Perhaps the most difficult part of constructing an interpretation of this cycle is determining where to begin. The information provided here is meant to be a basis for which original choices can be made and layered to create something which resonates with both performer and audience.

⁸³ Leonard B. Meyer, *Music, the Arts, and Ideas: Patterns and Predictions in Twentieth-Century Culture* (Chicago: University of Chicago Press, 1994), 7.

Chapter 6: Summary and Conclusions

The primary purpose of this study has been to provide sources from a wide array of perspectives to help a performer devise strategies for performing a unique piece like *CAPTCHA*. Conscious decisions must be made on the part of the singer, regarding what style or styles of interpretation to consider and eventually utilize. The interpretation begins with an exploration of the music, an analysis and interpretation of the words, fitting them into a concept, and determining the perspective of the performer.

While this Doctor of Musical Arts Document has dealt specifically with *CAPTCHA*, the challenge of addressing gibberish words as a means of communication is one which exists beyond the scope of this cycle. Vocalists in training may find that working with gibberish helps to diminish their reliance on words and their meanings to conjure emotions for text and subtext. The discovery process a student may have with gibberish not only strengthens expressive skills but also promotes autonomy. The system by which gibberish functions cannot be organized by another, lest it be considered language. Renowned improvisation teacher Viola Spolin writes, “Let students find this out for themselves. Gibberish, if communicated properly, can only bring about total physical response. But if the teacher *tells* the student he is to do it through action, he will then concentrate on action and will not get the experience he should have. We want integration of sound with physical or organic response; and it must come spontaneously from the student.”⁸⁴ In addition, gibberish work could also have an impact on a student’s ability to recover in the case of a forgotten lyric. If the specificity of a word is not necessary and more emphasis is placed on the story or subtext, a student may be more capable of continuing to execute the task without breaking character.

⁸⁴ Viola Spolin, *Improvisation for the Theater, A Handbook of Teaching and Directing Techniques* (Evanston, IL: Northwestern University Press, 1974), 121.

There are numerous areas for future research on this topic. This Doctor of Musical Arts Document is designed to be a performer's guide, but a future document could explore the cognitive processes which comprise interpretation on the part of both the performer and the audience. The adaptation of *CAPTCHA* and other pieces into various styles of acting could be considered and could suggest an evolution of what is considered to be standard recital procedure. As reCAPTCHA continues to make strides toward more effective identity protection, the standard obscured text we know as CAPTCHA is slowly falling out of fashion in favor of other means of testing identity, such as picture identification. It will be interesting to observe how this piece is viewed in the future as CAPTCHA texts are less prevalent in everyday life.

It is my hope that readers of this multidisciplinary Doctor of Musical Arts Document can consider this multitude of perspectives to create engaging performances of *CAPTCHA* and other pieces. Many of the strategies presented here apply to more conventional music as well, since theatre is virtually inseparable from vocal performance. In the spirit of *CAPTCHA*, I hope that performers continue to strive to create emotionally moving experiences, regardless of the content of the words.

Appendix I. CAPTCHA texts with form analysis

I. duchenp fled

- A duchenp fled; cens Overtanc
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- A' alfari weeps; Devillu noun

II. Henry folutch

- A Henry folutch
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cruel Otauten
capture mancisea
captured iturnp
blood hreerdi
- B Ancipart glass
- C cemaeve armed
varialla approaching
invasion essiGen
people toxless
odomentr power
higoopa 666

III. youJusto nicely

- Intro youJusto nicely
position. patched
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- Verse 1 yervis touching
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sfunclu gigantic
pectsOR weighty
Feervid LENGTH
- Verse 2 appears Flackl
Improper ericsia
galord short
consequence veybord

WhenRus comes
riahot face
bring towels

IV. Voix gustroor

- A Voix gustroor
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- A Secretary metadon
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- A' heckdin soul

- C orypeue Robert
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- D ranentri pronounces
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- A'' uropley END.

Bibliography

- American Speech-Language Hearing Association. "Aphasia."
<http://www.asha.org/public/speech/disorders/Aphasia> (accessed April 21, 2016).
- Anhalt, Istvan. *Alternative Voices: Essays on Contemporary Vocal and Choral Composition*. Toronto: University of Toronto Press, 1984.
- Auslander, Philip. "Just Be Your Self: Logocentrism and difference in performance theory,"
 In *Acting (Re)considered: A Theoretical and Practical Guide, 2nd edition*, edited by Phillip B. Zarrilli, 53-60. London: Routledge, 2002.
- , "Task and Vision: Willem Dafoe in LSD." In Zarrilli, 305-310.
- Beck, Dennis C. "Stanislavsky and Non-Realistic Theatre." In *The Routledge Companion to Stanislavsky*, edited by R. Andrew White, 213-229. London: Routledge, 2014.
- Berio, Luciano. "Sequenza III (author's note)."
<http://www.lucianoberio.org/node/1460?1487325698=1> (accessed April 21, 2016).
- Bogad, L.M. "Theory: Alienation Effect." <http://beautifultrouble.org/theory/alienation-effect> (accessed April 21, 2016).
- Brestoff, Richard. *The Great Acting Teachers and Their Methods*. Lyme, NH: Smith and Kraus, 1995.
- Cage, John. *Silence: Lectures and Writings*. Middletown, CT: Wesleyan University Press, 1961.
- Carroll, Lewis. *Alice's Adventures in Wonderland and Through the Looking-Glass and What Alice Found There*. Edited by Roger Lancelyn Green. London: Oxford University Press, 1971.
- Chilcote, Kathryn Susan. "The vocalise art song." D.M.A. diss., University of Oregon, 1991.
- Colaiani, Louis. *The Joy of Phonetics and Accents*. New York: Drama Publishers, 1994.
- Cooke, Deryck. *The Language of Music*. London: Oxford University Press, 1959.
- Deane, Seamus. Introduction to *Finnegans Wake*, by James Joyce, vii-xlix. London: Penguin, 2000.
- Edgerton, Robert Alson. "An Analysis for Performance of Messiaen's *Cinq Rechants*." D.Mus. diss., Indiana University, 1973.
- Fuchs, Elinor. *The Death of Character: Perspectives on Theater after Modernism*. Bloomington, IN: Indiana University Press, 1996.

- Green, Roger Lancelyn. Explanatory Notes to *Alice's Adventures in Wonderland and Through the Looking-Glass and What Alice Found There*, by Lewis Carroll. London: Oxford University Press, 1971.
- Halperin-Royer, Ellen. "Robert Wilson and the Actor: Performing in *Danton's Death*." In Zarrilli, 319-333.
- Holmgren, Arthur. *The Theatre of Robert Wilson*. Cambridge: Cambridge University Press, 1996.
- Karns, Courtney Doyel. "Samuel Barber's Use of the Texts of James Joyce." Poster from University of Wisconsin Eau Claire. <http://digital.library.wisc.edu/1793/31977> (accessed April 21, 2016).
- Kostelanetz, Richard. "Text and Art: A Survey." *UbuWeb*. <http://www.ubu.com/papers/kostelanetz.html> (accessed April 21, 2016).
- Linklater, Kristin. *Freeing the Natural Voice: Imagery and Art in the Practice of Voice and Language*. London: Nick Hern Books, 2006.
- , *Freeing Shakespeare's Voice: The Actor's Guide to Talking the Text*. New York: Theatre Communications Group, 1992.
- Lippman, Edward Arthur. "Symbolism in Music." *The Musical Quarterly*, no. 39 (1953): 554-575.
- Machamer, Peter K. "Some cogitations on interpretations." In *Interpretation: Ways of Thinking About the Sciences and the Arts*, edited by Peter K. Machamer and Gereon Wolters, 1-15. Pittsburgh, PA: University of Pittsburgh Press, 2010.
- Marranca, Bonnie. "The Wooster Group: A Dictionary of Ideas." *Performing Arts Journal*, no. 74 (2003): 1-18.
- McDermott, Kevin. Liner notes to *MORE Music from the Works of James Joyce*. Kevin McDermott. Sunphone Records 777215105799. CD. 2006.
- Meyer, Leonard B. *Music, the Arts, and Ideas: Patterns and Predictions in Twentieth-Century Culture*. Chicago: University of Chicago Press, 1994.
- Moore, Sonia. *The Stanislavski System: The Professional Training of an Actor*. New York: Penguin, 1984.
- Newham, Paul. "The Psychology of Voice and the Founding of the Roy Hart Theatre." *New Theatre Quarterly* 9 (1993): 59-65.
- Paterson, Robert. *CAPTCHA*. New York: Bill Holab Music, 2013.

- “The reCAPTCHA Project.” <https://www.cylab.cmu.edu/partners/success-stories/recaptcha.html> (accessed April 2, 2016).
- Rouse, John. “Brecht and the Contradictory Actor.” In Zarrilli, 248-259.
- Schoen, Max. *The Psychology of Music: A Survey for Teacher and Musician*. New York: Ronald Press, 1940.
- Sholl, Robert. “Love, Mad Love and the ‘point sublime’: the Surrealist poetics of Messiaen’s *Harawi*.” In *Messiaen Studies*, edited by Robert Sholl, 34-62. Cambridge: Cambridge University Press, 2007.
- Simms, Bryan R. *Music of the Twentieth Century: Style and Structure*. New York: Schirmer, 1986.
- Stanislavski, Konstantin. *An Actor’s Work on a Role*. Translated and edited by Jean Benedetti. London: Routledge, 2010.
- Spolin, Viola. *Improvisation for the Theater: A Handbook of Teaching and Directing Techniques*. Evanston, IL: Northwestern University Press, 1974.
- , *Theater Games for the Lone Actor: A Handbook*. Edited by Paul and Carol Sills. Evanston, IL: Northwestern University Press, 2001.
- Stickler, Larry Wayne. “Concert Vocalises for Solo Voice: A Selective Study.” D.Mus diss., Indiana University, 1989.
- Thomas, Lewis. *Et Cetera, Et Cetera: Notes of a Word-Watcher*. New York: Welcome Rain, 2000. Quoted in Linklater, *Freeing Shakespeare’s Voice*.
- Thomson, Virgil. *Music With Words: A Composer’s View*. New Haven, CT: Yale University Press, 1989.
- von Ahn, Luis et al. “CAPTCHA: Using Hard AI Programs for Security.” *Eurocrypt*. 2003. <http://www.cs.cmu.edu/~mblum/research/pdf/captcha.pdf> (accessed April 2, 2016).
- Weller, Philip. “Messiaen, the *Cinq Rechants*, and ‘Spiritual Violence.’” In *Messiaen Perspectives 1: Sources and Influences*, edited by Christopher Dingle and Robert Fallon, 279-309. London: Routledge, 2013.
- Willett, John, ed. and trans. *Brecht on Theatre: The Development of an Aesthetic*. New York: Hill and Wang, 1964.
- Wilson, Robert. “Robert Wilson and Umberto Eco: A Conversation.” *Performing Arts Journal* 15, no. 1 (1993): 87-96.
- Wuorinen, Charles. “Notes on the Performance of Contemporary Music.” *Perspectives of New Music*, no. 3 (1964): 10-21.