Rhythmic Notation and Syncopation in Broadway Pop Rock Music

by

Randi Ellen Rudolph

A Research Paper Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Musical Arts

Approved July 2021 by the
Graduate Supervisory Committee:

Brian DeMaris, Chair
Jeffery Meyer
Gabriel Bolaños

ARIZONA STATE UNIVERSITY

August 2021

ABSTRACT

When rock music began to appear on Broadway in the 1960s with *Bye Bye Birdie* and *Hair*, it opened up the door for new styles to be notated into musical theater scores. Since then, a wide variety of rock and pop genres have been incorporated into Broadway shows. Musical theater scores are representations of the show structure, and how rhythm and syncopation are notated in musical theater score affects how they are interpreted and performed.

The past twenty years have seen a growth in popularity of both revivals and jukebox musicals. A revival is a show that appears on Broadway again after the original production; jukebox musicals take an already produced pop rock album or artist and create a loosely structured narrative around it. By analyzing rhythmic notation and syncopations in revivals and jukebox musicals, this paper demonstrates how popular culture and rhythmic notation interact with each other to create complexity in musical scores and performances. Centering around the musical *Godspell* as a core example, this paper examines rhythmic notation in pop rock musical theater, investigating how revivals and jukebox musicals can contribute to increased rhythmic complexity in scores.

This paper articulates the possibilities of a rhythmic notation system that would simplify the complex and frequent syncopations in pop rock musical scores. Eastman professor David Temperley's work in rock syncopation and deep structure representation is discussed as it relates to musical theater scores. Expanding on Temperley's theoretical foundation, the appendices demonstrate a proposed original arrow notation with an original song composed for these research purposes.

ACKNOWLEDGMENTS

I would like to thank everyone who has supported me and my research during this process, especially Brian DeMaris, my committee chair, and Dr. Gabriel Bolaños and Dr. Jeffery Meyer, who are committee members. Thank you also to Wesley Bradstreet and Reem Soliman; without their vocal talents I could not have explored this topic.

Critical to this paper is the work of David Temperley, whose prior research on rhythm and rock inspired me to think critically about rhythm in American musical theater. Thank you to Dr. Nicholas Shea for introducing me to his work, and whose class served as a springboard for this paper.

TABLE OF CONTENTS

LIST OF FIGURES

PREFACE

This idea for this paper was born out of a problem I experience daily in my work as a music director. When rehearsing a pop rock musical with singers, I spend significant time coaching and correcting syncopated rhythms. I often end up focusing on what the written rhythm should "feel like" instead of trying to get the singers to understand the exact math happening on the page. My goal during the rehearsal process is to help singers incorporate complicated rhythms into their body so that it feels natural to them, and I wanted a more practical notation that could take my collaborators' work to the next level. Not all musical theater artists read music, and theater collaborators beyond actors can benefit from being able to understand what is happening visually on a page of music. Even choreographers and lighting designers take into account syncopated hits in the vocals or orchestra when crafting movement or lighting cues.

As a music director, I spend a lot of time considering the difference between a sixteenth note and a thirty-second note in a notated vocal riff. But listening to music without the score in front of me, do I focus on slight rhythmic discrepancies or on the overall vocal gesture? When I'm an audience member, I leave a pop rock musical performance thinking about style and rhythmic ensemble as a whole.

Taking into account my experiences on both sides of the curtain, I wanted to spend less time hammering out syncopations at the piano and more time talking about style and energy in rehearsals. I wanted to explore a notation that might be a faster and more accurate way of achieving rhythmic style and groove. After researching previous examples of how syncopations have been notated in pop rock musical theater, I created

deep structure notation as a way to explore a different way of communicating rhythm to vocalists.

Deep structure notation uses arrows to indicate relationship to strong beats, and invites a different approach to the collaboration between the singer and the page. Visual simplicity aside, the biggest asset I have found when using deep structure notation to coach musical material is an increased awareness of where the strong beats *should* be in the meter. Knowing where the strong beats originally land becomes an inherent part of singing with deep structure notation, because the strong beats (or deep structure) are literally written on the page. These strong beats become like guideposts for a singer navigating complex syncopations. They are visual indicators of the internal rhythmic structure of the vocal line, and this can help the singer not drag or rush during syncopations. It is my hope that we can continue to find other notational tools, in addition to my deep structure notation, to make our creation of musical theater more authentic and accessible to all.

CHAPTER 1: INTRODUCTION

American musical theater emerged out of many entertainment forms and traditions. Its foundation and success are built on the European immigrant and African American communities, who contributed more than just the occasional music or storyline. Vaudeville, burlesque, ballad operas from England, minstrelsy, and jazz all played pivotal roles in the development of musical theater in the early 1900s in New York and on Broadway, also known as the Great White Way.

Musical theater has always featured popular music on the theatrical stage, even in operettas of the early 20th century, and Broadway composers have strived to incorporate popular music into their scores as well. As popular music styles changed and grew, the styles of music performed on Broadway stages broadened and became more varied as well. For example, George M. Cohan composed countless patriotic stories and songs with his "brash, rough-and tumble" musical style that was designed to get the audience engaged and showcase American ideals.[1] Eubie Blake incorporated syncopated rhythms and jazz orchestrations into his musicals, including *Shuffle Along,* demonstrating that African American music could have an audience on Broadway.[2] "Between 1919 and 1921—New York's popular music scene and the music heard on the Broadway stage took a decisive turn toward syncopated rhythm and melody, as well as an increasing sophistication in words and music."[3]

---

[1] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 10.
[2] Steward F. Lane. *Black Broadway: African Americans on the Great White Way.* Square One Publishers, 2015, 74.
[3] Roger Smith. "1920: The Year Broadway Learned to Syncopate." *The Syncopated Times.* 30 July 2020. https://syncopatedtimes.com/1920-the-year-broadway-learned-to-syncopate/

POP ROCK MUSIC IN AMERICAN MUSICAL THEATER

As popular music in America shifted from Tin Pan Alley and toward the radio, the styles that could be found on Broadway began to broaden as well. Although *Bye Bye Birdie* and *Hair* played important roles in introducing rock music to Broadway, it was not until the seventies that the rock musical became "a fixture on Broadway…, partly because the definition of *rock* was so pliable, so inclusive by then."[4]

Bye Bye Birdie (1960), with music and lyrics by Charles Strouse and Lee Adams, "brought early rock n' roll to Broadway, framed in an otherwise traditional Broadway score."[5] The musical score for the show is not a pop rock score, but instead features pop rock music during select moments and numbers of the show. The story of *Bye Bye Birdie* itself focuses on the clash between older and younger generations, starring an Elvis-like icon named Conrad Birdie who is drafted into the Army. *Bye Bye Birdie* was "one of the few successful shows of the fifties and early sixties about contemporary life, and this was no doubt due in part to the embracing of early rock n' roll."[6] *Bye Bye Birdie* was considered the first rock musical in American musical theater history, but this claim does not demonstrate the more complex musical landscape of the time. Other musicals, such as *Hair,* would use rock music consistently from the opening to the closing number and challenge audiences with more taboo topics.

The groundbreaking musical *Hair* opened at The Public Theater in 1967, and this inaugural production shifted the landscape of popular music in musical theater. Starting

[4] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 116.
[5] John Kenrick. *Musical Theatre: A History.* London: Bloomsbury Methuen Drama, 2017, 250.
[6] Sheldon Patinkin. *No Legs, No Jokes, No Chance: A History of the American Musical Theater.* Northwestern University Press, 2008, 351.

downtown and transferring to Broadway the following year, *Hair* had a score that was completely made of rock songs and the instrumentation of a classic rock band, including electric bass and a drum set player that was separate from the percussion player.[7] In addition to having amplified instrumentation, *Hair* explored the concepts of youth and rebellion, and its content addressed topics like war, sex, and drugs. Underneath the drug-induced chaos, important stories were being told, and the "longstanding traditions and habits" that the so-called Golden Age had created began to crumble.[8] However, *Hair* did not immediately usher in the age of rock musicals, for although it found commercial success, Broadway producers were slower to acceptance – the 1969 Tony Award for Best Musical went to *1776.*[9] Even though "Broadway and popular music were once more on common ground…" it would take longer for rock music to become common on Broadway stages.[10]

The term "concept album" is applied to rock and popular music albums made from the 1940s onward that contain a central, unifying theme.[11] Concept albums existed in popular music before they were introduced into the musical theater genre in the seventies. An example of a concept album that was then turned into a musical is *Jesus Christ Superstar* (1971). Originally a record album that sold two million copies in one year, *Jesus Christ Superstar* was adapted as a stage musical shortly thereafter and

[7] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 107.
[8] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 108.
[9] "The Tony Award Nominations," Tony Award Productions, Accessed 2020. https://www.tonyawards.com/nominees/
[10] John Kenrick. *Musical Theatre: A History.* London: Bloomsbury Methuen Drama, 2017, 257.
[11] Wickins, Andrew. "What Is A Concept Album? DPL Has 195 For You To Listen To," Denver Public Library, 31 Jan 2020. https://www.denverlibrary.org/blog/music/dodie/what-concept-album-dpl-has-195-you-listen

featured a large cast singing a "wall-to-wall" rock score with extreme vocal demands.[12] With music by British composer Andrew Lloyd Webber and lyrics by Tim Rice, *Jesus Christ Superstar* opened on Broadway two years before transferring to London.[13] The musical score features driving and meter-shifting rock written with charts and simplified notation. Although *Jesus Christ Superstar* "…wasn't the first of its kind…it was certainly a landmark…" and paved the way for future shows to have a similar genesis.[14] Concept albums that became musicals often have emphasis placed on the music itself and may have small scenes in between numbers or no book at all. Because the music was created first, the story that has to follow it can be metaphorical and not extremely clear or predictable. This lack of clarity can reinforce the ideas of rock and rebellion by challenging the ideal of a cohesive and chronological narrative or plot.

Current pop rock music in American musical theater includes a wide range of genres and subgenres, from the hip hop and rap of *Hamilton* to the pop concert spectacle of *Six* the musical. *Next to Normal* (2009) combines a rock band with violin and cello and uses both acoustic and electric bass, expanding the lyrical possibilities that a rock musical is capable of.[15] Marketed by Concord Theatricals as having "difficult vocal demands," *Rock of Ages* (2009) is a parody musical with complex reworkings of vocal harmonies of popular 80s songs.[16] Revivals and jukebox musicals bring back familiar songs with new arrangements and orchestrations. With the success of pop rock musicals across genres,

---

[12] Sheldon Patinkin. *No Legs, No Jokes, No Chance: A History of the American Musical Theater.* Northwestern University Press, 2008, 420.
[13] John Kenrick. "The Encyclopedia of Musical Theatre." Musicals 101. 17 Jan. 2017. https://musicals101.com/1970bway1.htm
[14] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 127.
[15] *Next to Normal.* MTI Shows, Accessed 2021. https://www.mtishows.com/next-to-normal
[16] *Rock of Ages.* Concord Theatricals, Accessed 2021. https://www.concordtheatricals.com/p/93435/rock-of-ages

Broadway audiences demonstrate that they value "expressions of feeling in the music as well as good tunes in contemporary rhythms and styles."[17] With pop rock musicals having become established on Broadway in the second half of the twentieth century, studying written rhythmic notation in these pop rock scores is a way to explore how vocalists and instrumentalists approach and conceptualize rhythm.

RESEARCH TERMINOLOGY

Writing about American musical theater history presents challenges as it is a relatively new form of entertainment; research often focuses on personal experience and anecdotal writing as well as documented research. The following terms require clarification, given their general overuse in non-academic conversations.

POP ROCK: Genres in musical theater are not highly formalized or actively discussed in written academic research and histories, and the musical theater industry uses pop rock to mean various styles, orchestrations, or text settings, all within Broadway. Pop rock styles within musical theater include Motown, disco pop, contemporary punk, and country.[18] Pop rock orchestrations will feature amplified instrumentation, such as guitar, bass, or drums. Pop rock text settings will be more repetitive and metaphorical than traditional musical theater. When discussing pop rock musical theater in this paper, this is referring to the musicals that use pop and/or rock

[17] Sheldon Patinkin. *No Legs, No Jokes, No Chance: A History of the American Musical Theater.* Northwestern University Press, 2008, 530.
[18] Kevin Michael Jones. "Pop & Rock Musicals Guide (Categorized by Style & Time Period." *Musical Theatre Resources.* Web. https://musicaltheatreresources.com/2014/04/07/poprock-musicals-categorized-by-style-time-period/

music in the score, separating it from a more "traditional" or "classical" compositional style in musical theater.

BROADWAY: This paper discusses musical theater centered around Broadway, which is considered to be the highest standard for the American musical theater industry. Referring to Broadway is referring to the collective producers and stages that create and house musicals and plays in New York City. Once a show is produced in New York City, the scores are then transcribed and finalized to be licensed to professional and community theaters throughout the country. It is critical to realize that although Broadway is the impetus for most musical theater scores to be edited and published, the musical theater industry in America reaches churches, schools, entertainment venues, and homes across the country.

VOCAL RIFF: Essentially the pop version of an improvised melisma, vocal riffs differ slightly in terms of implied style and tradition. A riff does not carry the expectation of being notated accurately or even replicated accurately. More generally, a riff is the rapid changing of pitches on a single word or sound. A riff is "a vocal embellishment [or] vocal ornamentation in which the singer makes small changes to the melody, usually quickly. Examples can be found in many different styles of music, but are most prominent in pop, jazz, rock, and soul."[19]

BOOK/SCORE: These terms have multiple but related uses in musical theater. The *book* of a musical refers to the text that the characters speak that is not sung, although it could be underscored. The guitar *book* contains only the music that the

[19] Tara Sampson. "To Riff? Or Not to Riff?" *Tara Sampson Voice Studio.* 29 June 2019. https://tarasampsonvoice.com/

guitarists need to play during the show, and may be notated in a variety of ways. The piano-vocal *score* is largely considered equivalent to a full score in the musical theater industry, and contains the piano and vocal lines as well as other orchestral cues. The musical theater *score* refers to all of the music – vocal and instrumental – that would be heard during a performance.

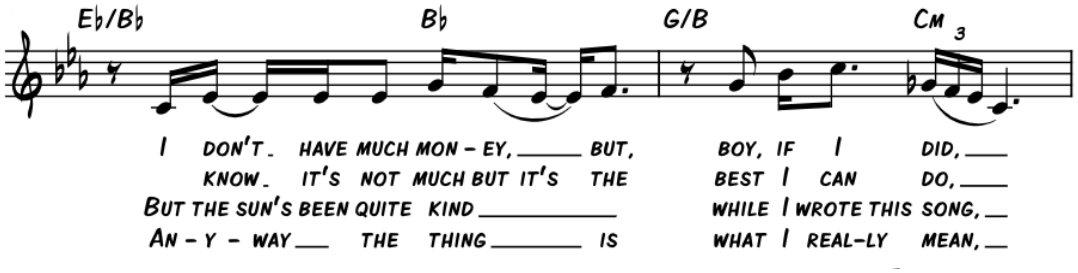
Studying how music is notated in musical theater history has not been done in great detail, as it might be more difficult to justify an immediate practical need for that knowledge in the industry. There is very little prior research that has been done on this topic in particular, however, rhythm in popular music has been studied extensively. Prior studies and papers will prove useful in providing important background information about how rhythm has been used in popular music and musical theater.

CHAPTER 2: POP ROCK NOTATION IN AMERICAN MUSICAL THEATER

Over fifty years after *Hair* premiered, there are now hundreds of musicals with pop rock scores that feature folk, country, Motown, disco pop, and more. When revivals and jukebox musicals open on Broadway, new versions of existing sheet music and scores are created to accurately notate the updated musical arrangements. Shows with performances on Broadway or Off-Broadway will have published musical theater scores available for individual or licensing use.

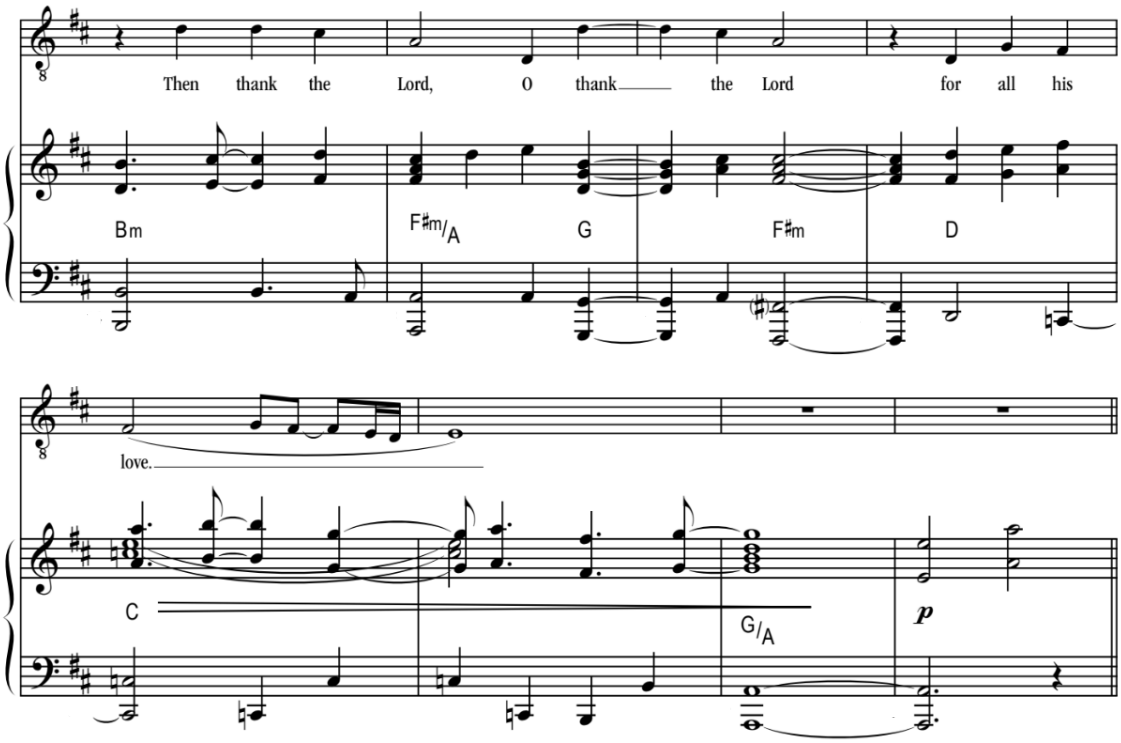
Musical theater scores that contain popular music may be notated in a variety of ways depending on the style, time period, and history of the show itself. Focusing specifically on rhythmic notation in pop rock musical theater scores brings light to notational practices in popular music. Composers and lyricists do not notate all musicals of the same genre or subgenre in the same way. Pop rock scores may contain complete notation as is traditionally done in early revue-style shows or book musicals, or they may be written out in charts and chord symbols, similar to what one might find in a fake book (See Figure 1). Examples of musicals with charts are *Godspell, Jesus Christ Superstar, High Fidelity,* and *Rent.* These shows rely on a rock band to drive the show with solos and transition passages not always notated in detail.

Figure 1: Lead Sheet Example[20]



Revivals and contemporary pop musicals are more likely to have scores with fully transcribed orchestral and vocal lines, such as *If/Then,* Disney's *Newsies, Little Women,* and *Big Fish.* These shows include bass, drums, and guitar, but also feature the lyrical, pop-driven qualities of the piano and string instruments (See Figure 2).

Figure 2: Contemporary Pop Example[21]



[20] Elton John and Bernie Taupin. "Your Song." Dick James Music LTD., 1969. Musicnotes.com
[21] Stephen Schwartz. *Godspell: 2012 Revised Version*. New York: Music Theatre International, 2012.

Most often, however, pop rock musical theater scores involve some combination of the two: charts or chord passages coexisting along more fully written-out lines. This allows for the flexibility of a live rock performance and the specificity of complex meters, vocal lines, and orchestrations to occur simultaneously and successfully. Whether a score is fully transcribed or in chart form can affect how rhythm notation is interpreted in pop rock style, particularly as syncopations become more prevalent in musical theater vocal lines.

SYNCOPATION

Syncopated rhythms are found throughout musical theater repertoire in all styles and time periods, but they are becoming more complex and common in contemporary pop rock musical theater styles. Working with vocalists on extended and complex rhythmic passages in musicals can be tedious and time-consuming, but it is also necessary and extremely important to accurately perform the score. By examining the usage and prevalence of syncopations in musical theater repertoire, what can be learned about the complexity and specificity of rhythmic notation?

A broad definition of syncopation usually indicates an accent on a normally unaccented beat. However, because syncopations can occur at any metrical or pulse level, assessing accents at a quarter note level will highlight different beats than assessing at a

sixteenth note level.[22] There are also differences in the definition and application of syncopation across genres.

Eastman School of Music Professor David Temperley states that "the nature of syncopation in rock is fundamentally different from that in classical music."[23] In rock music, syllabic stress in the lyrics plays a large role in the identification of syncopation, while in classical music aligning syncopations with strong beats worsens "the alignment between meter and stress rather than improving it."[24] Temperley has written extensively on rhythm and syncopation in rock music, and his research has been extremely valuable to this paper. Viewing syncopation as a conflict between stress and meter, he explores the idea that the listener is hearing the syncopated note as well as the beat it belongs to simultaneously.[25] His definition of syncopation is based on this idea of displacement, and occurs when an accent that belongs on a particular strong beat is "shifted or displaced to a weak one."[26] Temperley's research in syncopation and rock applies to contemporary Broadway pop rock scores.

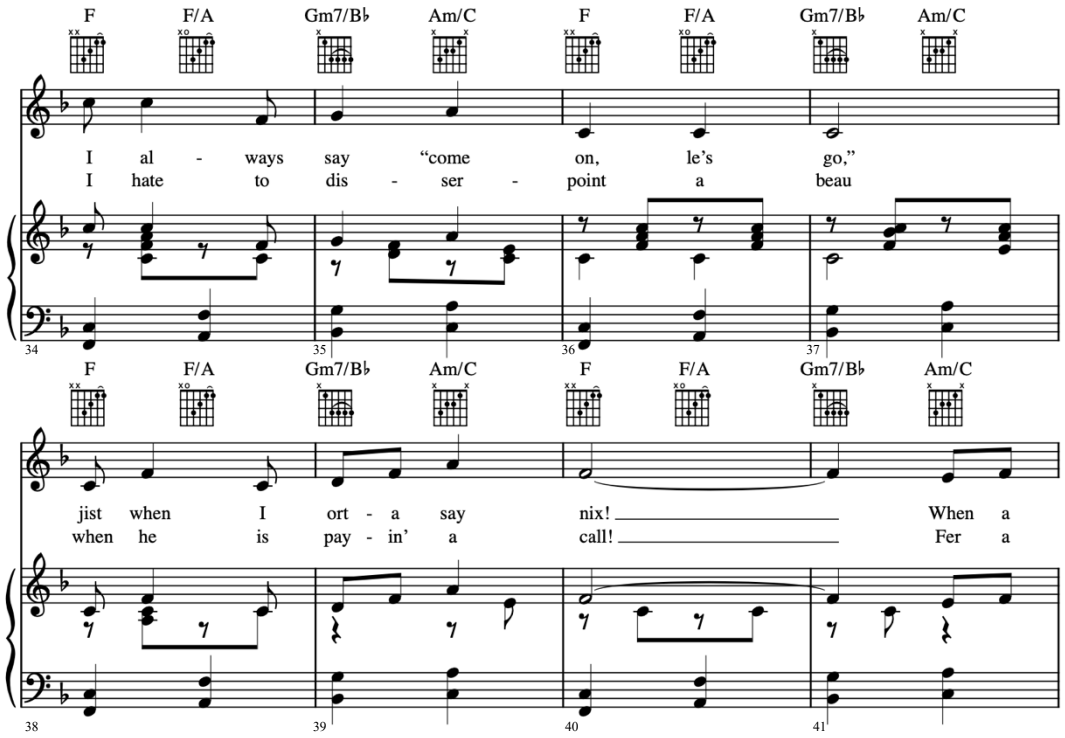
Figure 3 shows an example of syncopation in standard musical theater repertoire - an excerpt featuring the melodic hook of Rodger and Hammerstein's up-tempo song, "I Cain't Say No" from *Oklahoma!* (1943). While composers do use syncopations in earlier and more traditional forms of musical theater, they tend to be more isolated incidents

---

[22] Kris Shaffer, Bryn Hughes, and Brian Moseley. "Syncopation in pop/rock music." Open Music Theory. Hybrid Pedagogy Publishing, 2014. Web http://openmusictheory.com/syncopation.html
[23] David Temperley. "Syncopation in rock: a perceptual perspective." Popular Music (1999). Volume 18/1. Cambridge University Press, 20.
[24] Ivan Tan, Ethan Lustig, & David Temperley, "Anticipatory Syncopation in Rock: A Corpus Study." Music Perception 1 April 2019; 36 (4): 353.
[25] David Temperley. "Syncopation in rock: a perceptual perspective." Popular Music (1999). Volume 18/1. Cambridge University Press, 22.
[26] David Temperley. "Syncopation in rock: a perceptual perspective." Popular Music (1999). Volume 18/1. Cambridge University Press, 20.

occur only once in a phrase. In Figure 3, the syncopation occurs at the eighth note pulse level, and is written as a quarter note, which can be seen in measures 34 and 38. The displacement in Figure 3 is shifting the emphasis of the vocal line earlier from beat two to the “and” of one. The steady quarter notes in the piano score are a reminder of the strong beats; because they remain constant even during syncopations, they emphasize the displacement that occurs in the vocal line above. Aside from the one moment in each phrase, there are no other syncopations, including in the piano line. The purpose of the syncopation in this song is not to add more words or information to the text, but instead to add personality to the vocalist’s character.

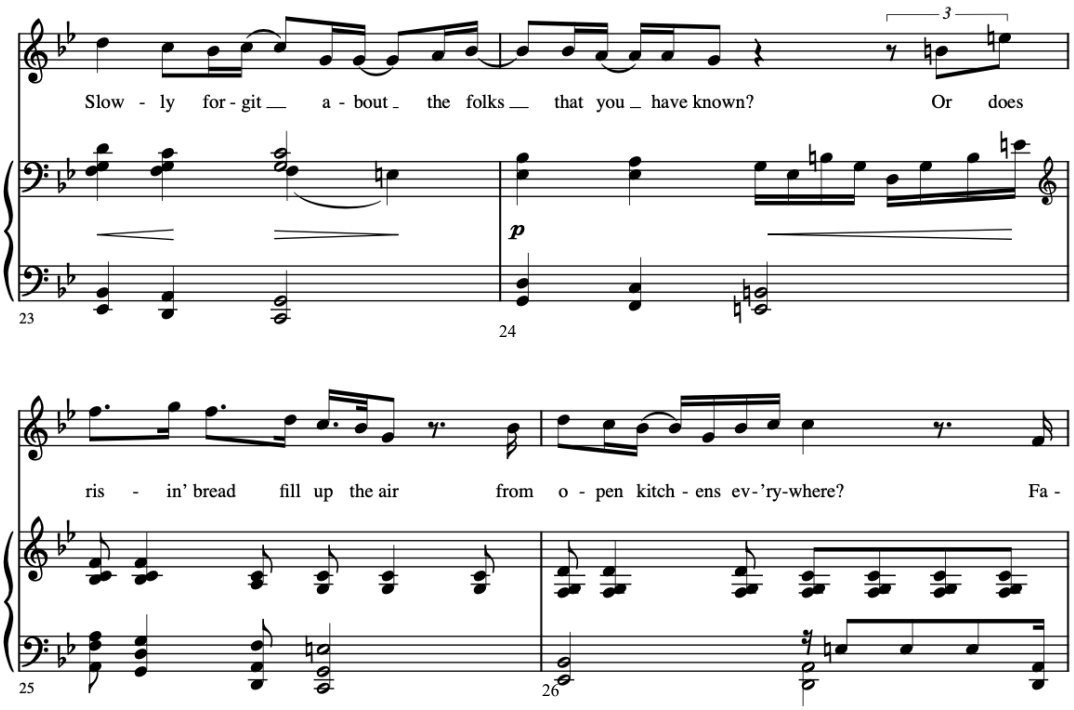
Figure 3: "I Cain't Say No," OKLAHOMA!, m.34-41[27]



[27] Richard Rogers and Oscar Hammerstein II. “I Cain’t Say No.” Oklahoma!, Williamson Music, 1943. Musicnotes.com

Looking at a more contemporary song shows the differences in how syncopation is used for text setting. Figure 4 shows an excerpt from the song “How Glory Goes,” from the 1997 musical *Floyd Collins,* written by Adam Guettel. This song contains many more syncopated notes, due in part to the speech-like nature of the vocal line. Each sixteenth note with a tie in the vocal line indicates a displaced beat in this phrase, while the syncopations in the piano line occur in measures 25 and 26 at the eighth note pulse level (See Figure 4). This demonstrates that syncopated pulse levels can be smaller in the vocal lines than the accompaniment lines – in this example, sixteenth note syncopations are occurring with eighth note syncopations.

Figure 4: "How Glory Goes," FLOYD COLLINS, m.23-26[28]



[28] Adam Guettel. “How Glory Goes.” Floyd Collins. Matthew Music, 1997. Musicnotes.com

Additionally, there can be a relationship between the syncopation in the vocal and piano (or accompaniment) lines. In the phrase shown in Figure 4, measures 23 and 24 feature syncopation in the vocal line but not the piano line. In measure 25, while the vocal line goes to a more stable rhythm, the piano shifts to a syncopated eighth note line. When the vocal line and the piano line have syncopations in the first two beats of measure 26, both the eighth notes and sixteenth notes contribute to the growing tension of the phrase. Integrated into the phrase instead of being isolated incidents, "How Glory Goes" features displaced sixteenth notes which draw more emphasis to specific words (additionally, this song is often sung with a Southern accent, as evidenced by the spelling of the words "forgit" and "risin').

In this song and many other contemporary pop rock musical theater scores, the syncopations are built into the melody of the vocal line, instead of being isolated events. When these complex syncopations are introduced into pop rock musical theater music, an interesting paradox occurs: "rock is about the beat; theatre songs are about information."[29] Pop rock music is often repetitive, both in music and text, and follows a relatively predictable structure of verses, choruses, and bridges. However, theater songs often need to communicate large amounts of narrative information over the course of a few minutes, and using vocal syncopations can allow composers and lyricists to add more text or more subtle inflections of emotions into repetitive moments of a song, therefore increasing the amount of information that can be shared at any given moment. Constantly syncopated vocal lines are common, and having entire songs built on non-repetitive and

[29] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 129.

complex syncopations allows for more text to be delivered in more natural and rhythmic ways.

GODSPELL

Revivals and jukebox musicals provide an opportunity to examine how the same music can be notated differently. When *Godspell* was first performed in 1970 at Carnegie Tech School of Drama, it was largely based on hymn texts set to original pop music.[30] When Stephen Schwartz joined the team in 1971, he created a new and "full, unified score" that maintained the original essence of the show and still left some of the original music intact.[31] Schwartz's original score is written for a simple rock combo of piano, guitar, bass, and drums and incorporates various styles of rock music from the sixties and seventies.[32]

The original Off-Broadway version of *Godspell* was revived on Broadway in 1988 and 2000, and because of the malleable and open-ended nature of the show, it became a popular favorite, especially for schools and churches.[33] In 2012, the show underwent a revisal period and the resulting book and musical score were "injected with contemporary references and dazzling new arrangements."[34] The new orchestration features three guitar books and a wider instrument palette in the percussion book, resulting in more detailed part-writing in both the instrumental and the vocal books.[35]

---

[30] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 120.
[31] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 120.
[32] *Godspell.* MTI Shows, Accessed 2021. https://www.mtishows.com/godspell
[33] Scott Miller. *Strike Up The Band: A New History of Musical Theatre*. Heinemann Drama, 2007, 121.
[34] *Godspell.* MTI Shows, Accessed 2021. https://www.mtishows.com/godspell
[35] *Godspell.* MTI Shows, Accessed 2021. https://www.mtishows.com/godspell

The history and development of *Godspell* show how differently rock music can be notated for the same music in the same show over time.

Figure 5 and Figure 6 show the same passage of the song "By My Side" from both *Godspell* scores. Figure 5 is from the original Off-Broadway piano-vocal score, and shows an opening phrase from the solo section of the song. The basic chords symbols and simple structure in the score indicate that this is a pop rock song (specifically soft rock): the quarter notes in the piano bass line, along with the chord symbols indicated inside the staff, show the harmonic rhythm that grounds the music. The piano treble line arpeggiates eight notes and doubles the vocal line to fill out the texture and groove of the music. The fact that the vocal line is doubled exactly in the piano-vocal score indicates that there should be a general adherence to the vocal rhythm for the singer, and is reminiscent of traditional early musical theater conventions.

Figure 5: "By My Side," GODSPELL, m.5-12[36]

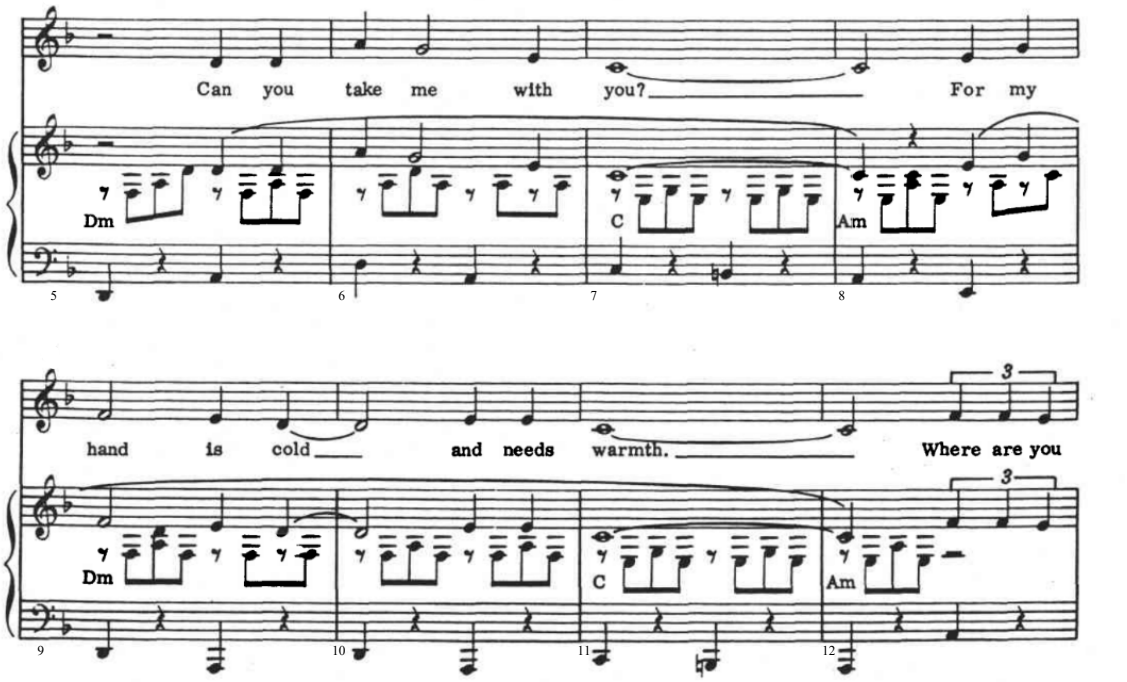
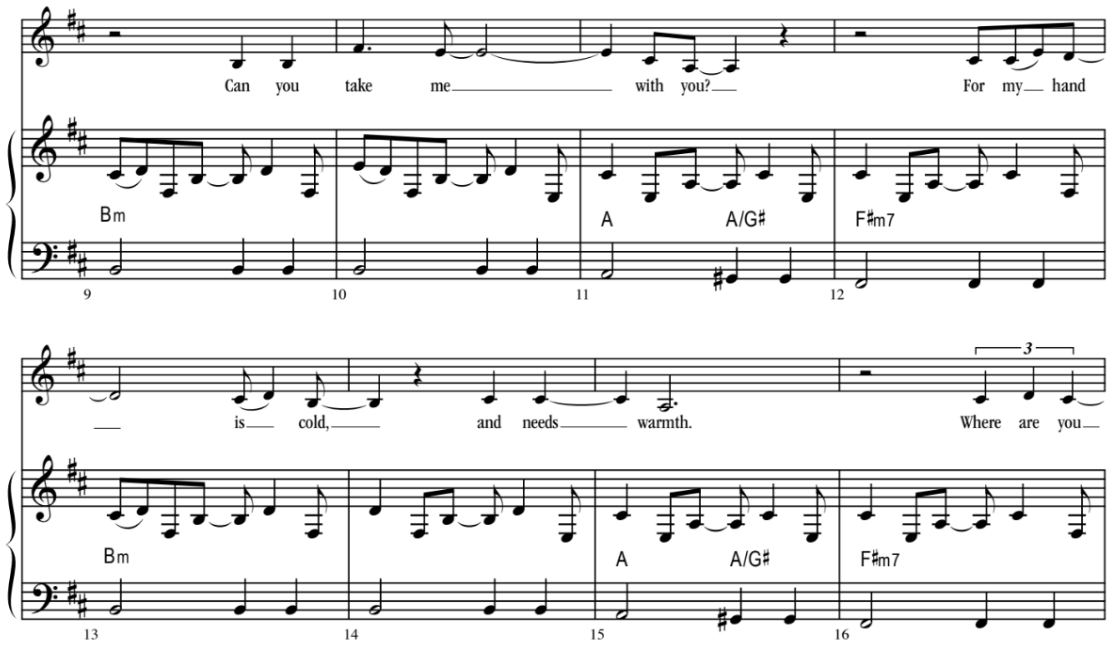


Figure 6 is from the 2012 Revival piano-vocal score, and even though the selection is in B minor and not D minor, represents the same phrase as is shown in Figure 1. Every layer of this score is more complex, starting with the piano bass line rhythm and chord notation. The descending line in measure 11 is notated as A and then A/G#, while in the original score only a single chord is notated over the entire measure (See Figure 5, measure 7). Notating exact details such as changing bass notes becomes more necessary to ensure clarity in the bass line between the electric bass guitar player and the piano player. The piano treble line, while still maintaining the underlying eighth note movement, adds a new layer of syncopation and rhythmic pulse (See Figure 6). The tied

[36] Stephen Schwartz. *Godspell: A Musical Based Upon the Gospel According to St. Matthew.* Nashville: The Herald Square Music Company, 1972.

eighth notes, which occur on the "and" of beat two in every measure, interact very carefully and specifically with the vocal line, sometimes aligning (measure 10) and sometimes intentionally staggered (measure 12).

Figure 6: "By My Side," GODSPELL Revival, m.9-16[37]



Finally, the vocal line itself is no longer doubled in the piano line and instead is notated with small pop rock gestures to inform contemporary performance style. For example, the vocal syncopation on the word "cold" is maintained in both versions of the score – however, in the revival it becomes more complex as the pulse level is notated at the eighth note level. The small gesture in measure 13 of Figure 6 – the vocal line going from an eighth note C# to a quarter note D – initiates the feeling of syncopation earlier than in Figure 6 on the same phrase, creating intentional back-phrasing, or singing behind the beat. Whether or not the exact vocal and rhythmic gestures are achieved in this

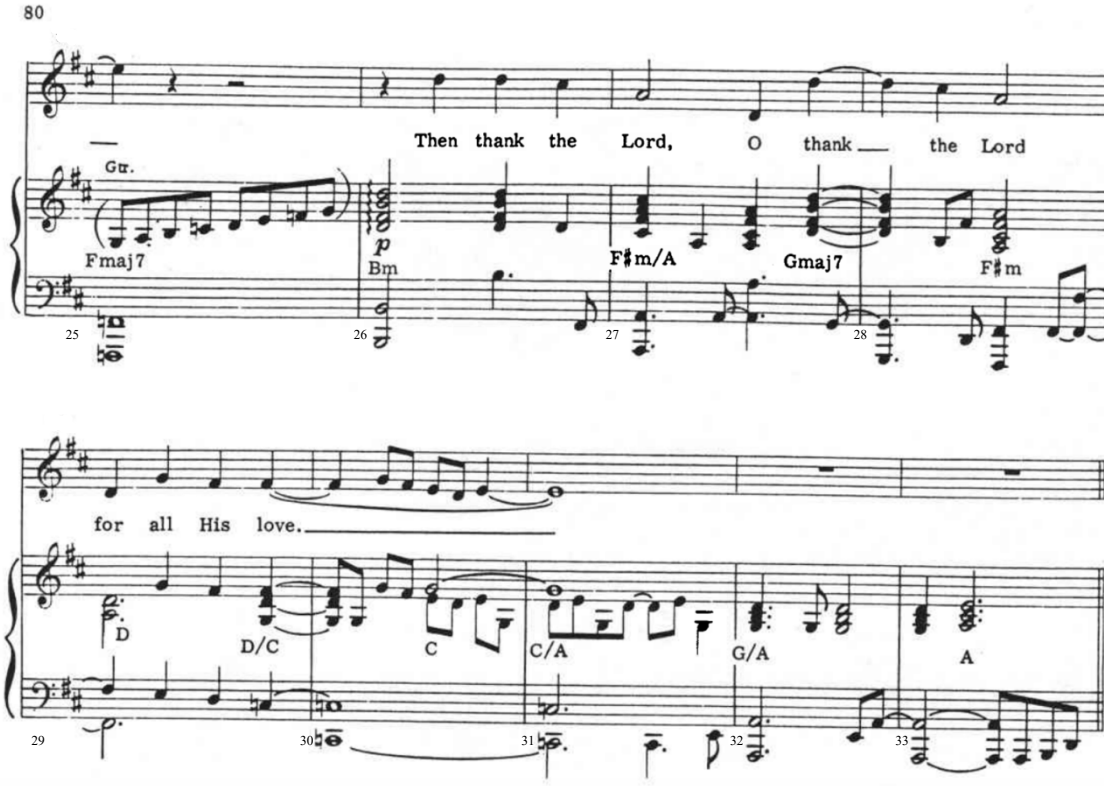
[37] Stephen Schwartz. *Godspell: 2012 Revised Version*. New York: Music Theatre International, 2012.

revival score, the intentions behind the 2012 revival demonstrate an increase in specificity and complexity of rhythmic pulse levels from the original Off-Broadway score.

This increase in specificity allows for more detailed and nuanced musical phrasing and gestures to occur, while at the same time necessitating a more advanced knowledge of syncopations and rhythmic notation. The openness of the notation in the original Off-Broadway score allows for more individual interpretation and perhaps even more spontaneity of musical performance, as only the structure and outline of the phrasing are indicated. While the Broadway Revival score puts significantly more rhythmic details on the page in both the piano and the vocal lines, this will not automatically lead to a more detailed performance. If the small subdivisions and syncopations become the sole purpose of the performance, then the large idea and expression may be lost in the minute details. When working with a singer who does not have advanced rhythmic training, when do the details on the page become cumbersome instead of helpful?

The revival of *Godspell* not only amplifies the vocals of the ensemble moments, but also notates specific vocal riffs as further indications of pop rock style. When the vocal lines become more accurately notated in the score, the note values present inevitably become smaller and smaller as exact details become more important. In the song “All Good Gifts” from the Off-Broadway piano-vocal score, there are several phrases that end with descending riff-like gestures, such as measure 30 in Figure 7. Additionally, the piano eighth notes support the vocalist during their riff on the word “love,” and continue into measure 31 as a melodic figure.

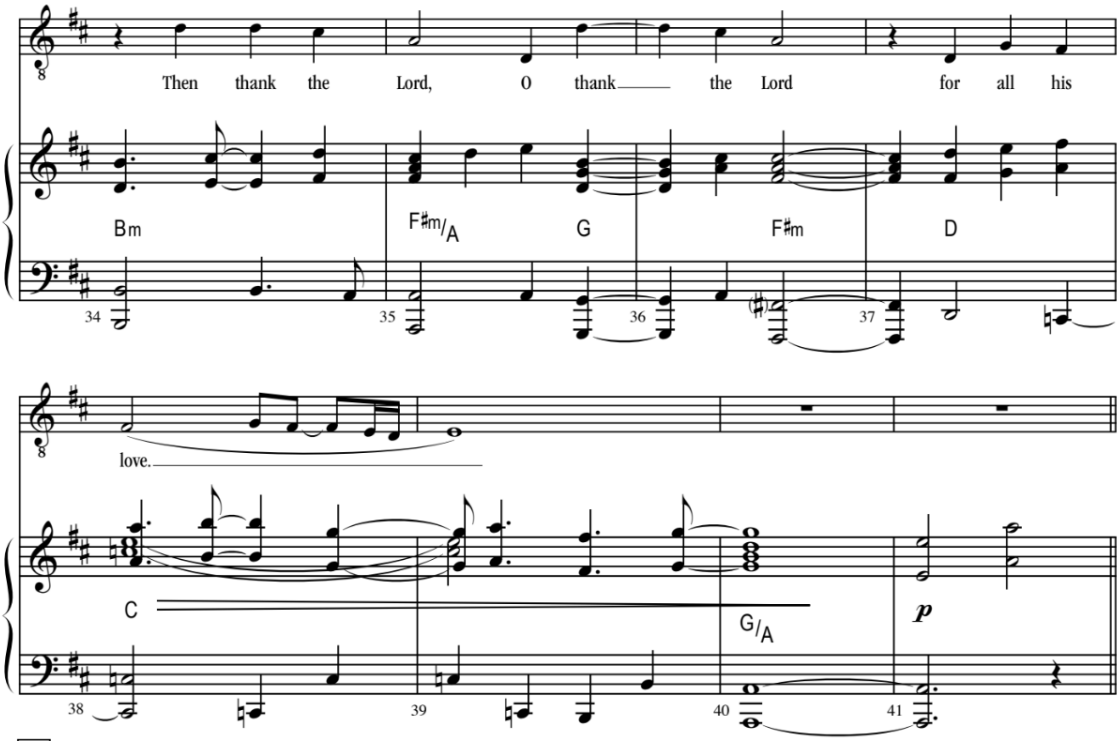
Figure 7: "All Good Gifts," GODSPELL, m.25-33[38]



The same passage in the revival piano-vocal score contains fewer eighth notes; additionally, both scores are in the same key – D Major (See Figure 8). Overall, there are fewer eighth notes in the revival than the original, indicating that there is not necessarily an increase in rhythmic complexity in this example. However, in measure 38 there are two sixteenth notes in the vocal line, and these faster notes create a different effect with the riff. By shifting the rhythm and creating a syncopation with the same notes in the vocal line, a more naturally inflected effect occurs. The piano emphasizes the syncopation with a G octave in the treble clef on beat four, when the vocalist has already arrived on the syncopation a half beat earlier (See Figure 8).

[38] Stephen Schwartz. *Godspell: A Musical Based Upon the Gospel According to St. Matthew.* Nashville: The Herald Square Music Company, 1972.

Figure 8: "All Good Gifts," GODSPELL Revival, m.34-41[39]



Meticulous rhythmic notation in pop rock musical scores allows for more accurate learning and performances of specific complex passages. Specific rhythmic notation, such as repetitive syncopations, can infuse a more natural style into an increased number of lyrics. When large amounts of text or information are delivered in a song, emphasizing the correct syllable or important word through syncopation can make comprehension easier. The riff on the word "love" from Figure 7 to Figure 8 has changed from a straighter rhythm to a more complex rhythm with the addition of sixteenth note syncopations. Complex rhythmic notation also allows for a more consistently repeatable performance across national or international tours, factoring in as a positive for the

[39] Stephen Schwartz. *Godspell: 2012 Revised Version*. New York: Music Theatre International, 2012.

commercial aspects of Broadway. However, are Broadway audiences listening for an exact recreation of the cast album when they attend the theater, and how open are they to an actor's individual musical choices and interpretation?

Increased rhythmic complexity comes with significant drawbacks which cannot be overlooked. More detailed rhythms and smaller note values simply mean more notation on the page, which can also be difficult to decipher visually on the page. Because more complex rhythmic notation places more focus on the small details, vocalists and pianists must find a way to appropriately balance the notation with the larger musical structure and phrasing. With more syncopations and complicated rhythms in the musical score, vocalists may find it more difficult to infuse their own personal style or means of expression into the song. Adding too much rhythmic detail can lessen the authority of the score itself by forcing musicians to pick and choose what is sustainable and reasonable to successfully perform eight times a week.

CHAPTER 3: COMPLEXITY OF NOTATION

JUKEBOX MUSICALS

Jukebox musicals contribute to the increased complexity of rhythmic notation on Broadway. Jukebox musicals take an already produced pop rock album or artist and create a loosely structured narrative around it. Seeing a rise in popularity, in 2020 all nominations for Best Musical were jukebox musicals: *Jagged Little Pill, Moulin Rouge! The Musical,* and *Tina - The Tina Turner Musical.*[40]

Jukebox musicals are built with pop rock songs that existed and were already popular before the musical was created. This idea of "recycled pop songs" bears further discussion: John Kenrick, a musical theater author and educator, adds to this discussion, saying: "As a commercial art form, musical theatre reshapes itself continually to meet ongoing changes in popular taste. In the past few decades, those changes have ranged from the superficial (such as electronic amplification and hydraulic sets) to the essential (such as using recycled pop songs)."[41] Both original pop rock scores and jukebox musicals contain increasingly complex rhythmic notation, and often featured syncopated notation discussed here.

When a pop rock song is notated onto sheet music as a lead sheet or piano-vocal arrangement, the vocal line will often be transcribed to include the syncopated rhythms and riffs that the originating pop rock singer performed and popularized. Figure 9 shows a lead sheet of Elton John's "Your Song. With only the vocal line and chords notated, the notation provides the structure of how Elton John performed it originally in the 1970s.

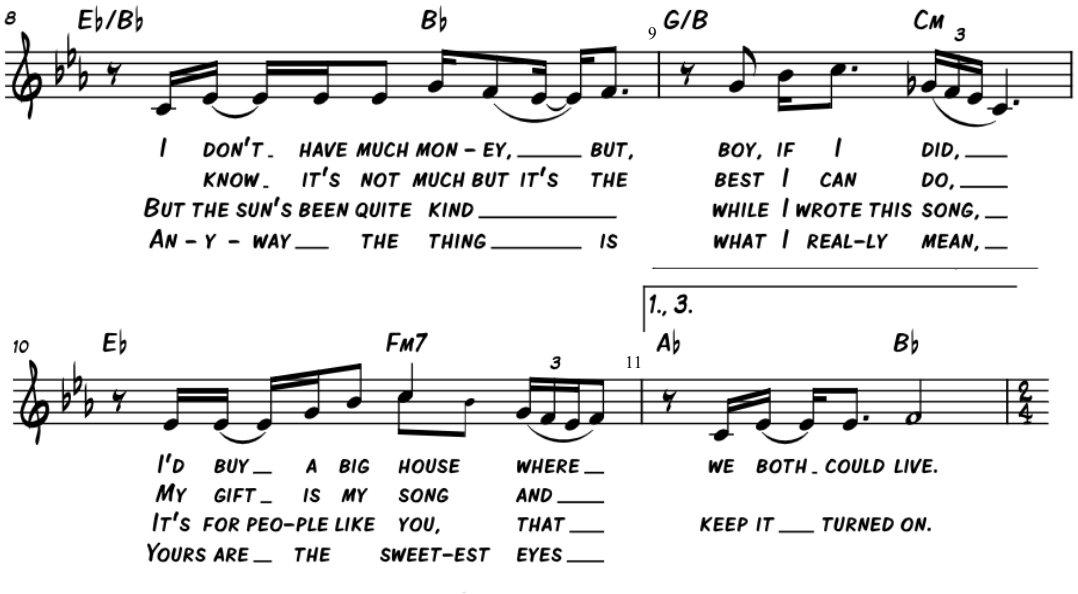
---

[40] "The Tony Award Nominations," Tony Award Productions, Accessed 2020. <https://www.tonyawards.com/nominees/>

[41] John Kenrick. *Musical Theatre: A History.* London: Bloomsbury Methuen Drama, 2017.

The triplet sixteenth notes in measures 9 and 10 are reminiscent of the vocal riffs that Elton John uses while performing, although, with four verses notated exactly the same way (see the four lines of lyrics in Figure 9), it is not necessarily an exact indication of what rhythm to sing.

Figure 9: "Your Song," Elton John, m.8-11[42]



The lead sheet in Figure 9 allows the musicians to recreate the experience of the song. How Elton John sings the song, including the riffs and rhythmic nuances, is integral to that experience. Already, there is a level of rhythmic complexity in the notation of this pop rock song that requires multiple pulse levels of subdivisions (sixteenth notes and triplet sixteenth notes). A simpler rhythmic transcription might provide a better basic idea of the structure of the song, but it would also limit the nuance and detail in the score. Additionally, anyone performing this will also likely rely on the recording, not just the score, to interpret the nuance and rhythmic complexity. This means that the transcription

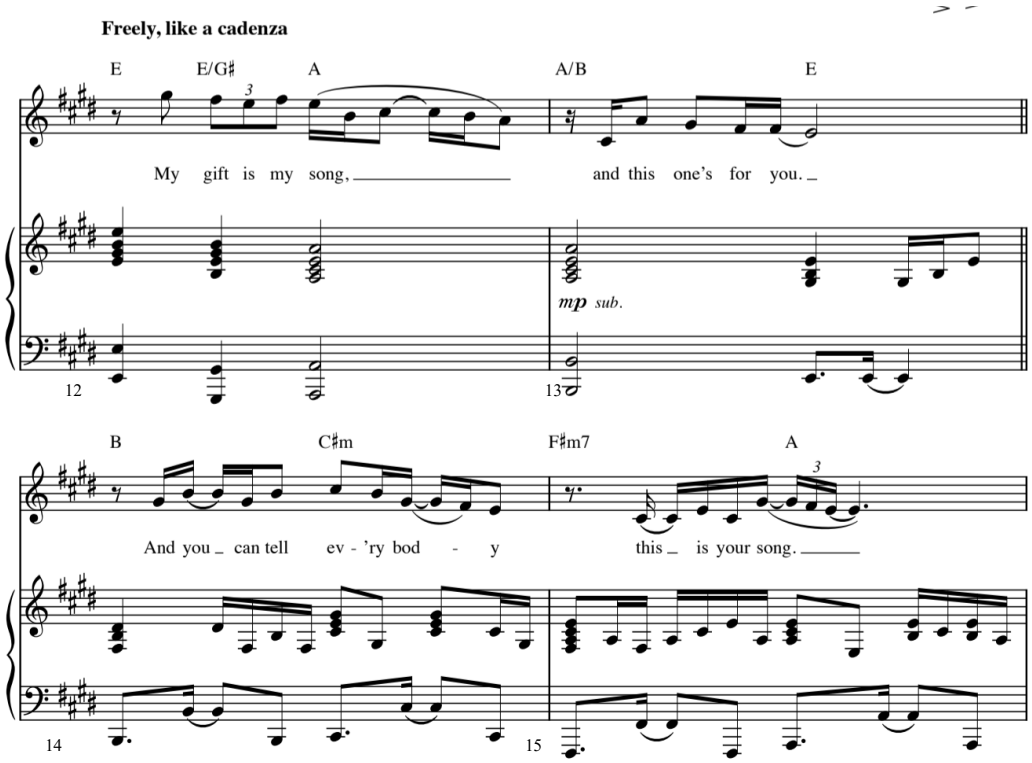
[42] Elton John and Bernie Taupin. "Your Song." Dick James Music LTD., 1969. Musicnotes.com

will not be the only representation of the musical detail – oral performances and recordings will also assist in representing all of the musical detail.

Jukebox musicals can be biographical about a famous artist or musician, or they can be a collection of existing songs set to an original story. Figure 10 shows a similar selection from the 2018 Broadway jukebox musical *Moulin Rouge!,* based on the 2001 Baz Luhrmann film. The producers originally planned for the film to have an original musical score, but the concept eventually shifted toward a jukebox soundtrack. Executive music producer and music supervisor Anton Monsted explains: "We felt it was quite apt to use that opportunity to use the film as a lens through which to see and celebrate the great pop songs of the 20th century."[43]

[43] Maureen Lee Lenker. "*Moulin Rouge!* was almost an original musical (and other soundtrack secrets)." *Entertainment Weekly.* Meredith Corporation. Web. 01 June 2021. https://ew.com/movies/moulin-rouge-20th-anniversary-soundtrack-secrets/

Figure 10: "Your Song," MOULIN ROUGE!, m.12-15[44]



When Aaron Tveit was cast in the lead role of Christian in 2019, he provided an additional layer of rhythmic detail to his performances. Tveit sings Elton John's "Your Song" with his own nuances and variations, some choices dictated by the Broadway creative team and some discovered on his own.[45] When the score for *Moulin Rouge!* is realized as a pop rock musical score, the vocal line is notated to represent how Tveit sings it. However, his vocal performance reflects a layering of both artists (Elton John's interpretation plus Aaron Tveit's interpretation), creating a combination of rhythmic notational complexity.

[44] Elton John and Bernie Taupin. "Your Song." *Moulin Rouge! The Musical.* Dick James Music LTD., 1969. Musicnotes.com

[45] David Gordon. "*Moulin Rouge!* on Broadway Is Bringing Aaron Tveit's College Self Full Circle." *Theatermania.* Web Interview. 14 July 2019. https://www.theatermania.com/broadway/news/interview-aaron-tveit-moulin-rouge_89260.html

In Figure 10, the piano line is notated in a way that reveals harmonic and rhythmic details that would not be achieved with simply a lead sheet, such as in Figure 9. Additionally, the "like a cadenza" indication in measure 12 is a clear indicator that this song is being taken away from its basic pop song structure and into something more complicated and detailed. Starting in measure 14, the rhythmic groove of the music is syncopated, which can be seen in the piano bass line. The vocal line in measure 10 of Figure 9 has been completely transformed and inverted in measure 12 of Figure 10. These significant changes in the vocal line occur while maintaining the harmonic structure of the original song, giving the pop rock song a more theatrical and spontaneous feel by breaking down the expectations of how rhythm is notated and used. The triplet sixteenth notes in measure 15 of Figure 10 resemble the main style and feel of the riffs that Elton John incorporates into the song (See Figure 9, measure 9 and measure 10).

The transformation of the rhythmic notation from original pop rock song can be seen not only in the *Godspell* and *Moulin Rouge!* examples, but anytime a pop rock song is rendered across different performance mediums. With a shift in performance medium, the score can become more specifically notated in order to preserve the vocal rhythms and experience. By the time scores from a jukebox musical or the revival of a rock show like *Godspell* are published, they are notated greater rhythm detail, which can prove both helpful and challenging.

Pop rock music on the radio and on the stage relies heavily on the aural experience rather than the act of realization of the score. However, it is important to recognize and understand how jukebox musicals or revivals can affect what vocalists and musicians see on the page. The commercial system of Broadway theaters and producers

influences what rhythmic notation looks like, with tendencies leaning toward the more complex. Considering the increased specificity in rhythmic notation and how that contributes to the score visually, the idea of a simplified rhythmic notation for use in pop rock musical scores will be discussed next.

DEEP STRUCTURE NOTATION

Examining both why and how rhythmic notation of pop rock music changes in complexity is useful and informative, but also begs the question of how rhythmic notation can grow and change in the future. Not all musical theater artists (even those performing on Broadway stages) read standard musical notation very well or at all, and heavily syncopated vocal lines present challenges for correctly learning and accurately performing the written music. By exploring the significance of Temperley's term "deep structure," the idea for an original arrow notation called "deep structure notation" was developed for use in pop rock musical theater scores.

As previously mentioned, Eastman professor David Temperley's research in syncopation and popular music is an extremely useful way to approach syncopation and rhythmic notation in pop rock musical theater scores. His research is built on the idea of rock syncopation functioning differently than classical syncopation, and therefore it can be analyzed in ways that might not be traditionally considered in classical music.[46] His idea is that the deep structure of a rhythmic phrase can be used as a way to store a simplified version of heavily syncopated music for analytical purposes, as opposed to the

[46] David Temperley. "Syncopation in rock: a perceptual perspective." Popular Music (1999). Volume 18/1. Cambridge University Press, 20.

exact replication of the syncopated line.[47] While melodic and rhythmic reductions in theory and analysis are not new, what is unique about Temperley's approach is that it places rhythm and metrical preference rules as the primary means of reduction.

Temperley's "Syncopation Shift Rule" states that "In inferring the deep structure of a melody from the surface structure, any event may be shifted forward by one beat at a low metrical level."[48] "Low metrical level" refers to pulse levels that are smaller or faster in value, such as eighth notes and sixteenth notes that often are used in complex vocal line syncopations.

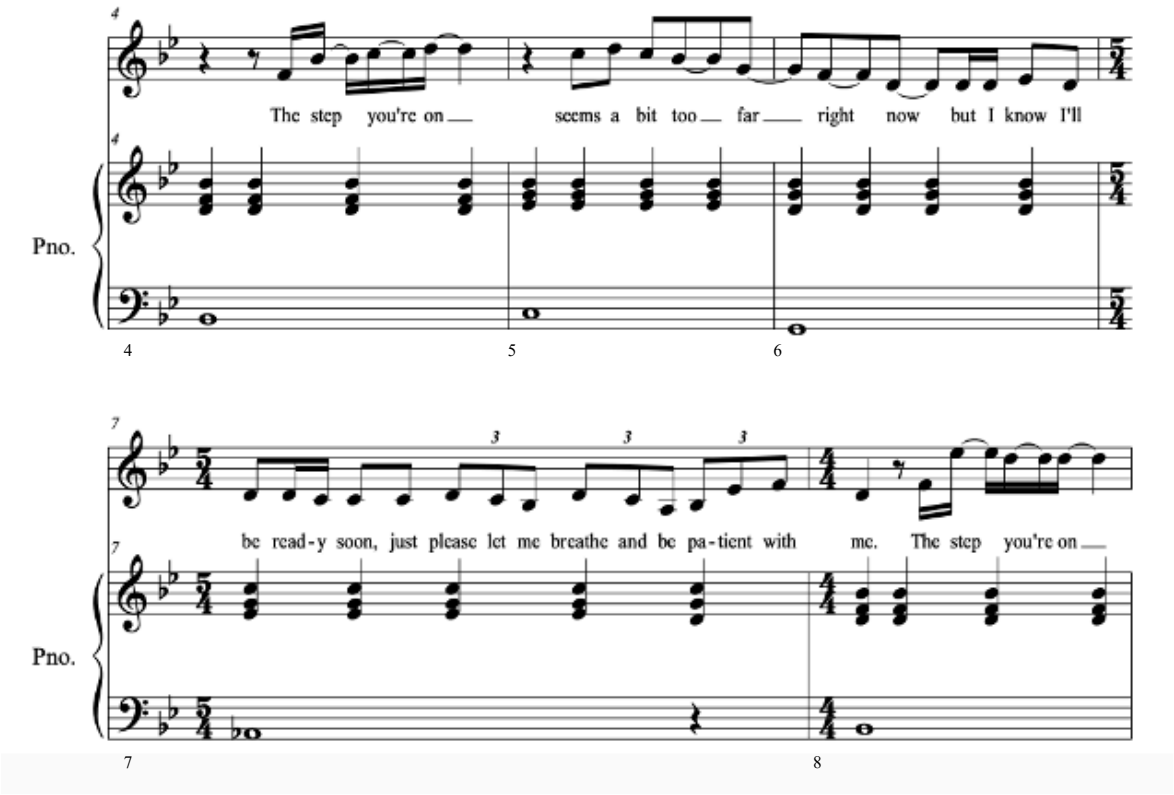
By taking this idea of deep structure and incorporating it into an original notation that indicating low-level metrical shifts with arrows, a helpful skeletal rhythmic structure is revealed. This deep structure notation allows for a more specific understanding of how syncopation functions in musical theater pop rock scores, and can be used as an exploration of including non-reading vocalists in Broadway music, particularly as pop rock styles are often learned or transmitted by ear.[49]

Figure 11 shows an excerpt from a pop rock song written in traditional notation, while Figure 12 shows the same excerpt written in this proposed deep structure notation. Deep structure notation takes the same vocal line and uses arrows to indicate the syncopated displacement. The arrows written in Figure 12 are indications for the singer to begin singing the note before it is written, shifting it to the left on the x-axis of time. By

[47] Ivan Tan, Ethan Lustig, & David Temperley, "Anticipatory Syncopation in Rock: A Corpus Study." Music Perception 1 April 2019; 36 (4), 362.
[48] David Temperley. "Syncopation in rock: a perceptual perspective." Popular Music (1999). Volume 18/1. Cambridge University Press, 26.
[49] David Temperley. "Syncopation in rock: a perceptual perspective." Popular Music (1999). Volume 18/1. Cambridge University Press, 20.

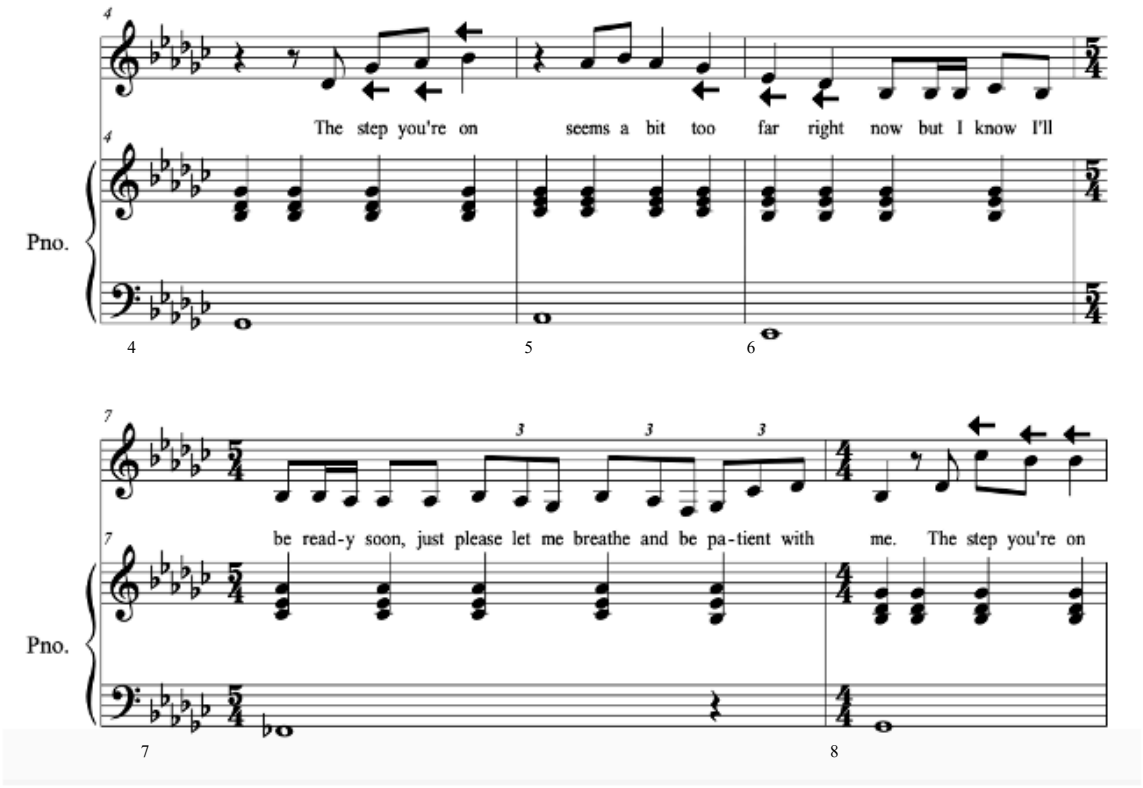
using the arrows to highlight Temperley's idea of displacement in rock syncopation, the focus is shifted to the critical feeling of syncopation in pop rock music.[50]

Figure 11: "The Step You're On," Traditional Notation, m.4-8



[50] For more information on the practical aspects of performing using deep structure notation, see Appendix B [THE STEP YOU'RE ON: DEEP STRUCTURE NOTATION].

Figure 12: "The Step You're On," Deep Structure Notation, m.4-8



There is precedence for a simplified arrow notation such as this deep structure notation throughout music history, including thoroughbass or figured bass, jazz charts, fake books, swing notation, and simple pop notation of chords and lyrics. Deep structure notation is simply another tool that could have potential in Broadway pop rock rhythmic notation. When teaching heavily syncopated music, music directors and vocal coaches often rely on deep structure to help the singer place the syncopation correctly without knowing exactly what it is.

This paper is not suggesting deep structure notation as a replacement for traditional notation, but rather as an easy-to-learn option for specific passages or styles that might otherwise be over-notated on the page. The various examples throughout this paper demonstrate that contemporary Broadway pop rock musicals, including revivals

and jukebox musicals, often fall into this category. However, not all syncopation, particularly isolated syncopations used in early American musical theater, hold up to deep structure notation. Syncopations that are based in a more classical tradition, such as "I Cain't Say No" in Figure 3, tend to be not as visually complex on the page as well.

Songs that would be good candidates for this deep structure notation would feature repeated, extended syncopated phrases with at least equal emphasis on text comprehension and groove. Examples include: "Goodbye" from *Catch Me If You Can*, "Corner of the Sky" from *Pippin*, or "Crazier Than You" from *The Addams Family.* In some contemporary musical theater passages, more speech-like rhythms could be incorporated into the arrow notation, even if they are not repetitive. Songs that would not be good candidates for this deep structure notation would feature extreme exactness of rhythm or lining up of text with the orchestra for specific comedic bits or technical cues. Examples include: "Changing My Major" from *Fun Home*, "Everything Else" from *Next to Normal*, or "Smell of Rebellion" from *Matilda*.

David Temperley's research into rock syncopation is extensive and complex, and he adapts previous theories of meter to develop his own set of metrical preference rules specifically for rock music. His analysis is detailed and encourages other viable applications for rhythmic analysis of syncopation in popular music. Deep structure notation is a methodical way to incorporate Temperley's research in rock syncopation and reduce the complexity of the rhythmic notation on the page, and also opens the door to understanding what rhythms "feel like" instead of "look like."

Deep structure notation and its incorporation of arrows to indicate displacement is just one notational tool that composers have available to make their music more

accessible to those without advanced training in rhythmic notation. It could be useful for a heavily syncopated moment in a particular musical theater song, or perhaps for an entire show written in a pop rock style. Exploring other notational systems that are simplified or different from traditional notation is a valuable way to continue to include more genres and styles of music into Broadway shows and scores.

CONCLUSION

As Broadway musicals increasingly incorporate diverse musical styles and influences, composers and orchestrators may also explore new ways of rhythmic notation in scores. Additional exploration of rhythmic tools discussed in this paper can hopefully lead to rhythmic notation which makes the interpretation of musical theater more accessible to performers who may not read traditionally notated music. Overly complex or detailed rhythmic notation in pop rock scores may limit accessibility to the music and genre, which would not lend itself toward an authentic performance style. Through the use of deep structure notation, exploration can begin on how traditional rhythmic notation in Broadway pop rock music could be made more accessible to singers, visually simpler on the page, and perhaps even more reflective of style.

REFERENCES

Ewen, David. "Musical Comedy Is Born." *Theatre History.com.* N.p., 1961. Web. 18 Sept.2016. http://www.theatrehistory.com/american/cohan001.html

Gaare, Mark. "Alternatives to traditional notation." Music Educators Journal, Mar., 1997, Vol. 83, No. 5 (Mar., 1997), pp.17-23. https://www.jstor.org/stable/3399003

"George M. Cohan." *PBS.* PBS, n.d. Web. 18 Sept. 2016. http://www.pbs.org/wnet/broadway/stars/george-m-cohan/

Godspell. MTI Shows, Accessed 2021. https://www.mtishows.com/godspell

Gordon, David. "*Moulin Rouge!* on Broadway Is Bringing Aaron Tveit's College Self Full Circle." *Theatermania.* Web Interview. 14 July 2019. https://www.theatermania.com/broadway/news/interview-aaron-tveit-moulin-rouge_89260.html

Guettel, Adam. "How Glory Goes." *Floyd Collins.* Matthew Music, 1997. Musicnotes.com

John, Elton and Bernie Taupin. "Your Song." Dick James Music LTD., 1969. Musicnotes.com

John, Elton and Bernie Taupin. "Your Song." *Moulin Rouge! The Musical.* Dick James Music LTD., 1969. Musicnotes.com

Jones, Kevin Michael. "Pop & Rock Musicals Guide (Categorized by Style & Time Period." *Musical Theatre Resources.* https://musicaltheatreresources.com/2014/04/07/poprock-musicals-categorized-by-style-time-period/

Kenrick, John. "The Encyclopedia of Musical Theatre." Musicals 101. 17 Jan. 2017. http://musicals101.com/

Kenrick, John. *Musical Theatre: A History.* London: Bloomsbury Methuen Drama, 2017.

Lane, Steward F. *Black Broadway: African Americans on the Great White Way.* Square One Publishers, 2015.

Lenker, Maureen Lee. "*Moulin Rouge!* was almost an original musical (and other soundtrack secrets)." *Entertainment Weekly.* Meredith Corporation. Web. 01 June 2021. https://ew.com/movies/moulin-rouge-20th-anniversary-soundtrack-secrets/

Lubbock, Mark. *The Complete Book of Light Opera.* New York: Appleton-Century-Crofts, 1962.

Mandelbaum, Ken. "Revivals: The '90s." *Broadway Buzz.* https://www.broadway.com/buzz/10851/revivals-the-90s/

Miller, Scott. *Strike Up The Band: A New History of Musical Theatre.* Heinemann Drama, 2007.

Mito, Hiromichi. "Role of Daily Musical Activity in Acquisition of Musical Skill: Comparisons between Young Musicians and Nonmusicians." Bulletin of the Council for Research in Music Education, No. 161/162, 20th ISME Research Seminar, Las Palmas de Gran Canaria, July 2004 (Summer - Fall, 2004), pp. 165-172.

Next to Normal. MTI Shows, Accessed 2021. https://www.mtishows.com/next-to-normal

Pareles, Jon. "POP/JAZZ; The Rhythm Century: The Unstoppable Beat." The New York Times, May 3, 1998, Section 2, Page 1.

Patinkin, Sheldon. *No Legs, No Jokes, No Chance: A History of the American Musical Theater.* Northwestern University Press, 2008.

Rock of Ages. Concord Theatricals, Accessed 2021. https://www.concordtheatricals.com/p/93435/rock-of-ages

Rodgers, Richard and Oscar Hammerstein II. "I Cain't Say No." *Oklahoma!,* Williamson Music, 1943. Musicnotes.com

Rodriguez, Carlos Xavier. *Coming of Age: Teaching and Learning Popular Music in Academia.* Ann Arbor, MI: Michigan Publishing, University of Michigan Library, 2017. http://dx.doi.org/10.3998/mpub.9470277

Rubin, Rachel. "Way Down Upon the Hudson River: Tin Pan Alley's New York Triumph." *Broadway and Tin Pan Alley.* Tribeca Film Institute., n.d. Web. 18 Sept. 2016. http://americasmusic.tribecafilminstitute.org/session/view/broadway-and-tin-pan-alley#essay

Sampson, Tara. "To Riff? Or Not to Riff?" *Tara Sampson Voice Studio.* 29 June 2019. https://tarasampsonvoice.com/

Schwartz, Stephen. *Godspell: A Musical Based Upon the Gospel According to St. Matthew*. Nashville: The Herald Square Music Company, 1972.

Schwartz, Stephen. *Godspell: 2012 Revised Version*. New York: Music Theatre International, 2012.

Shaffer, Kris, Bryn Hughes, and Brian Moseley. “Syncopation in pop/rock music.” *Open Music Theory.* Hybrid Pedagogy Publishing, 2014. Web http://openmusictheory.com/syncopation.html

Smith, Roger. “1920: The Year Broadway Learned to Syncopate.” *The Syncopated Times.* 30 July 2020. https://syncopatedtimes.com/1920-the-year-broadway-learned-to-syncopate/

Tan, Ivan, Ethan Lustig, & David Temperley, “Anticipatory Syncopation in Rock: A Corpus Study.” Music Perception 1 April 2019; 36 (4): 353–370. https://doi.org/10.1525/mp.2019.36.4.353

Temperly, David. “Syncopation in rock: a perceptual perspective.” Popular Music (1999). Volume 18/1. Cambridge University Press.

“The Tony Award Nominations,” Tony Award Productions, Accessed 2020. <https://www.tonyawards.com/nominees/>

Wickins, Andrew. “What Is A Concept Album? DPL Has 195 For You To Listen To,” Denver Public Library, 31 Jan 2020. https://www.denverlibrary.org/blog/music/dodie/what-concept-album-dpl-has-195-you-listen

APPENDIX A

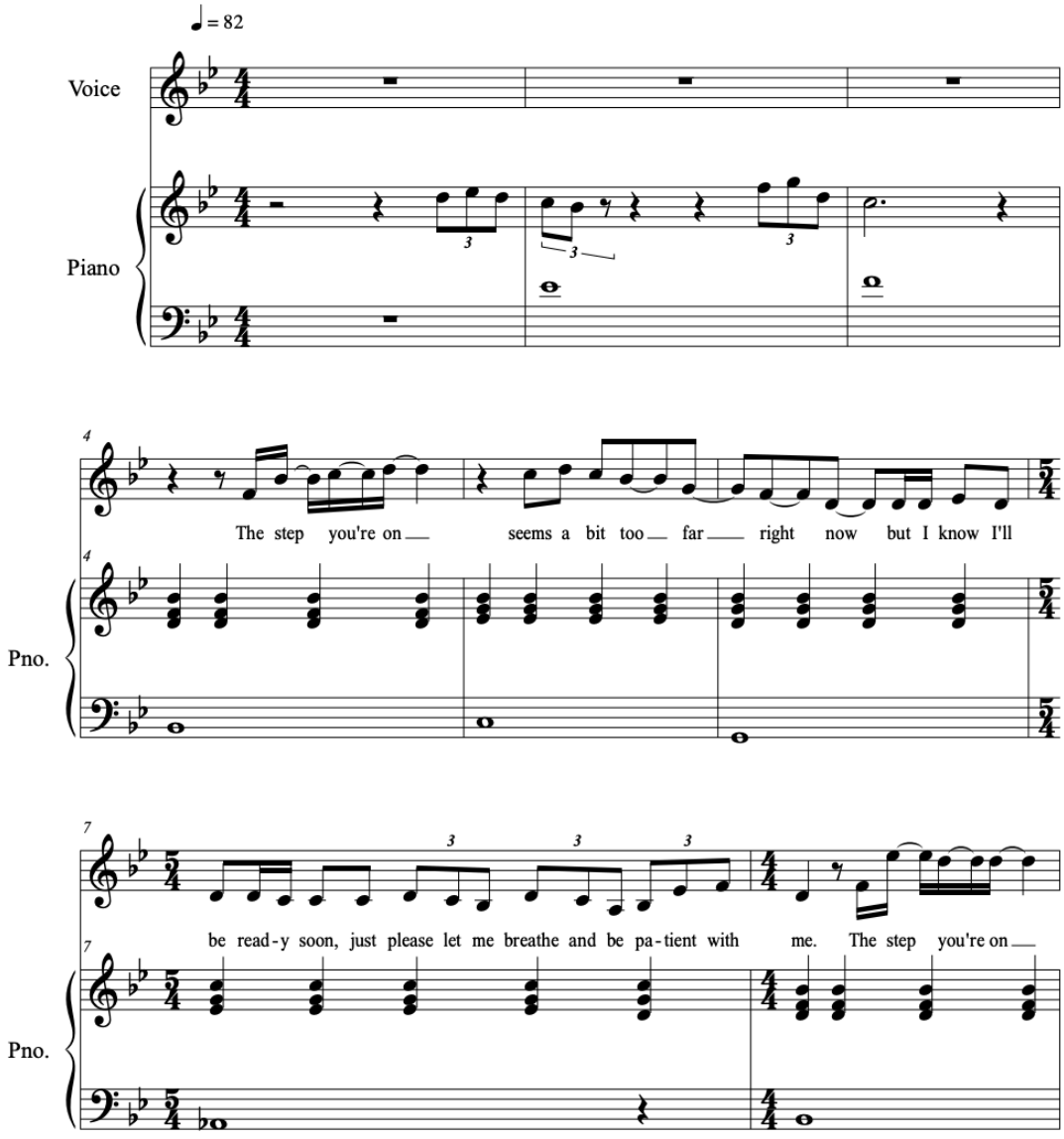
THE STEP YOU'RE ON: TRADITIONAL NOTATION

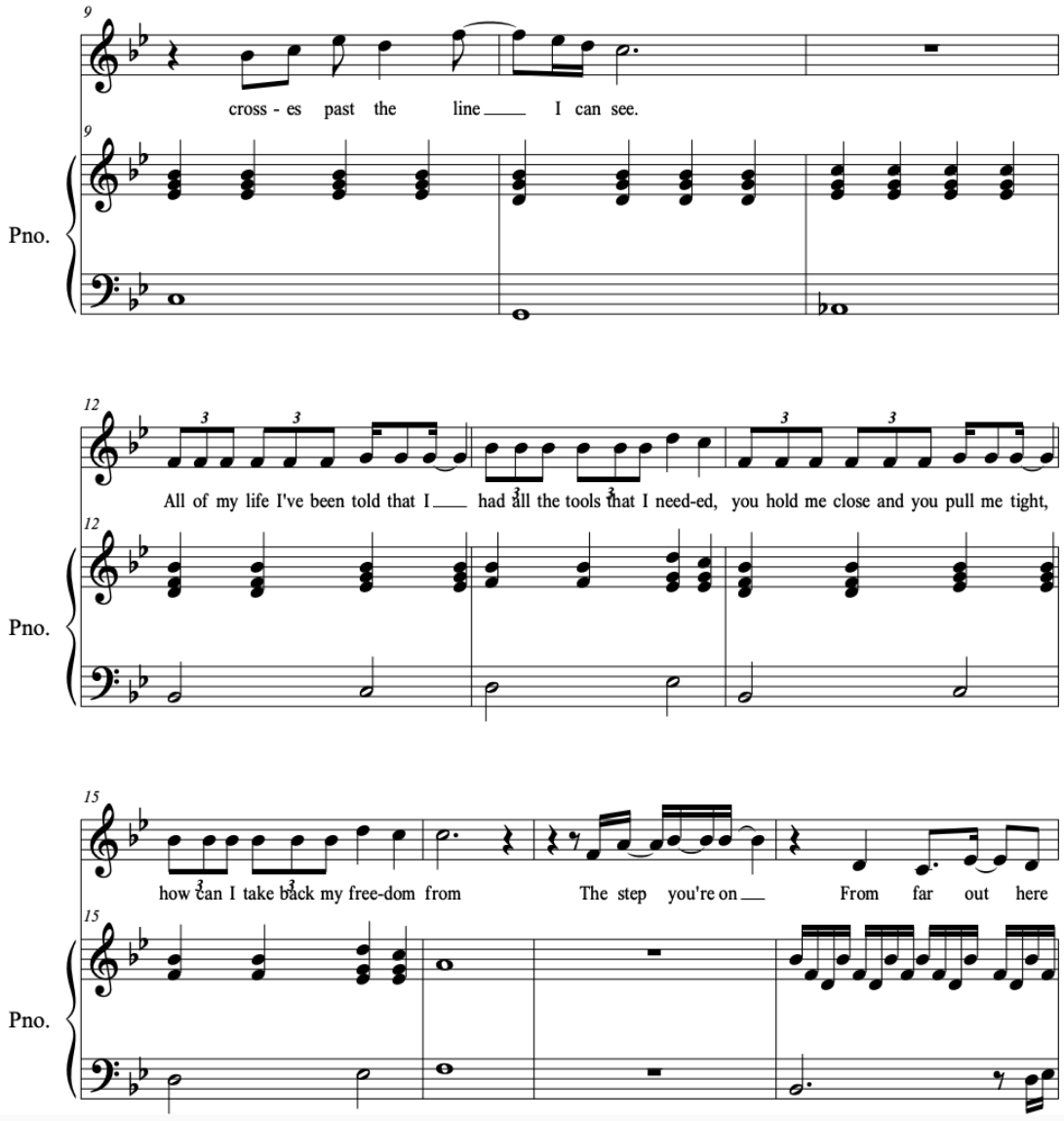
Score

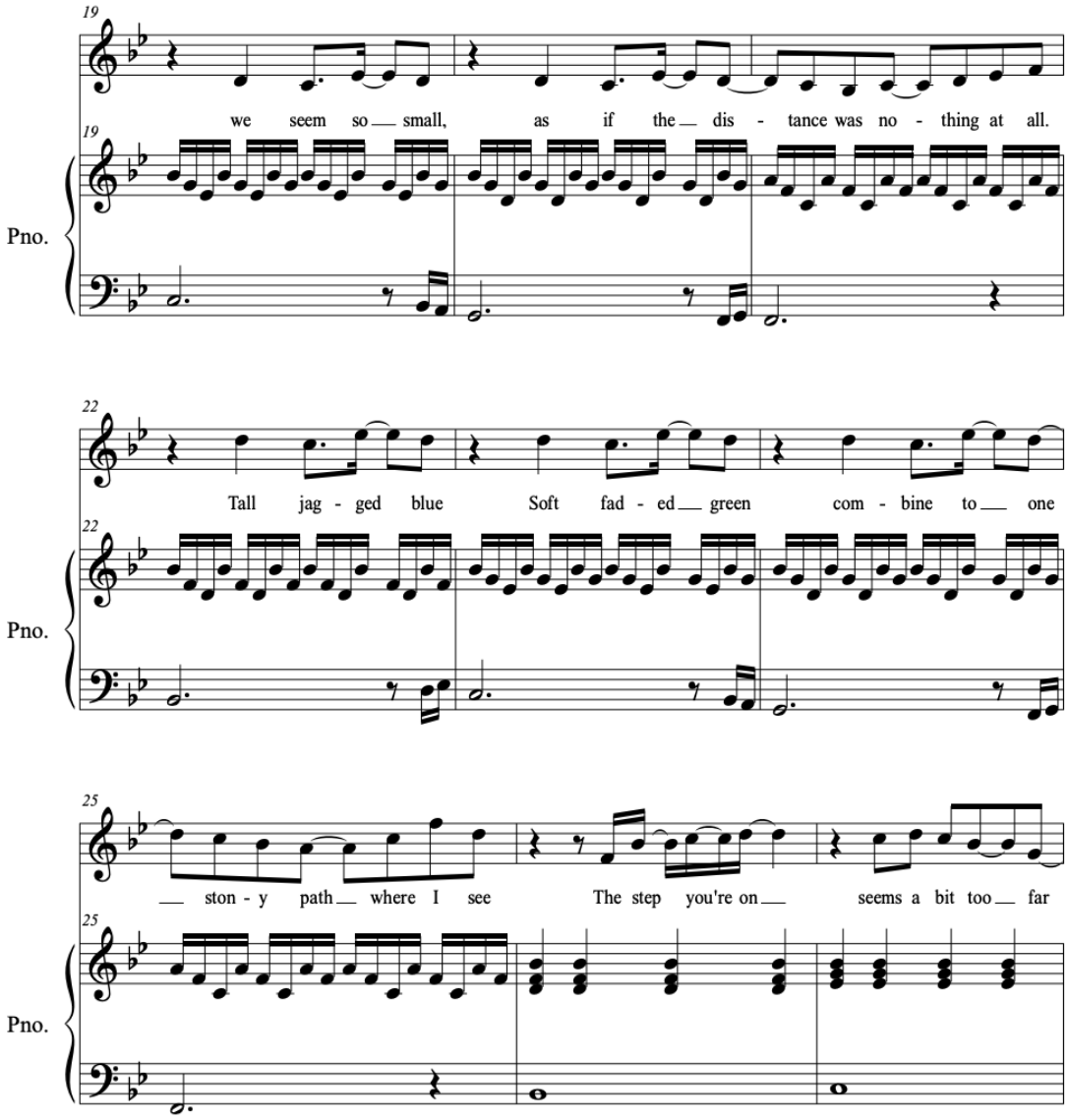
The Step You're On

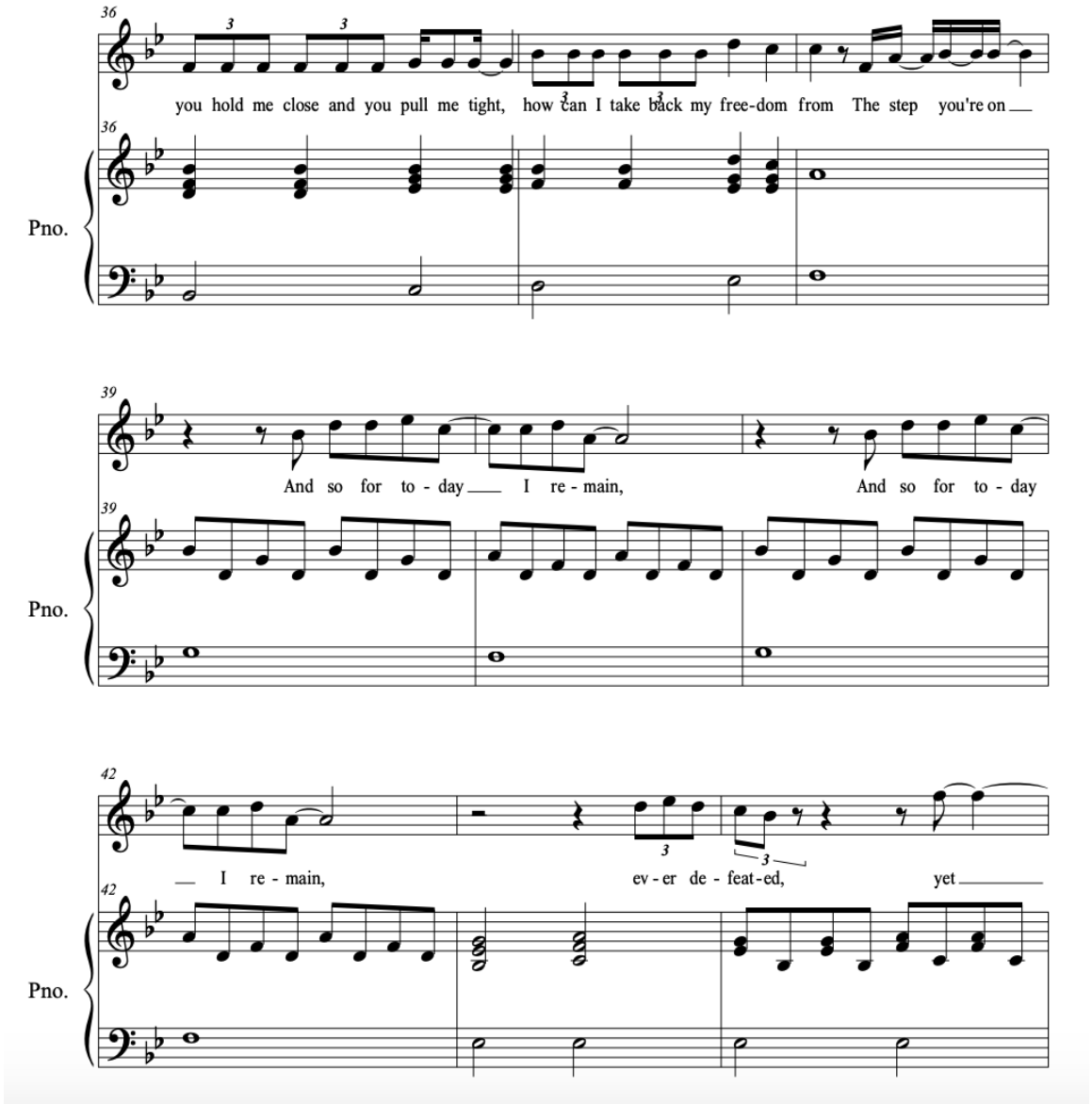
Traditional Notation

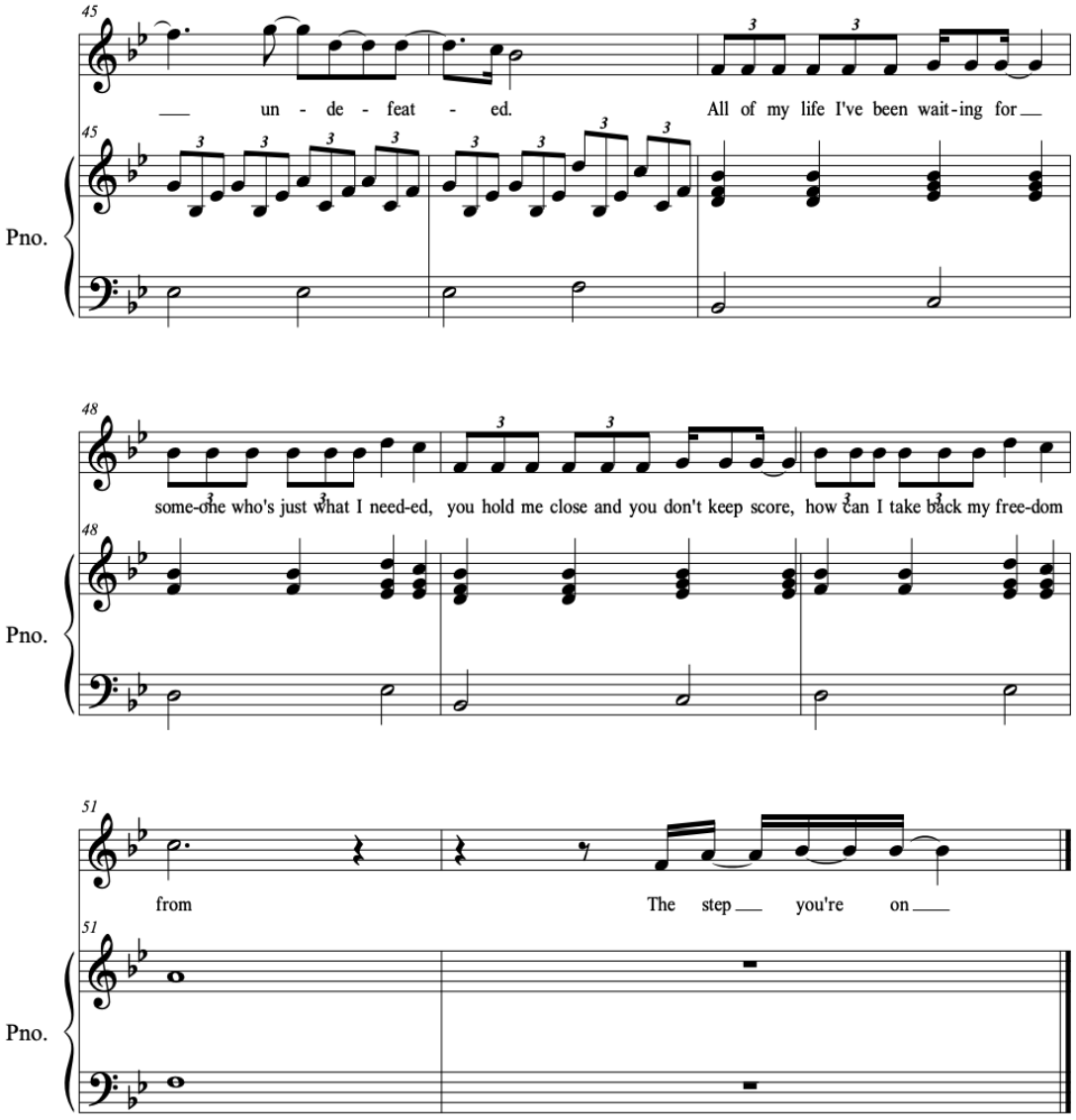
Rudolph




9
cross - es past the line I can see.
Pno.
12
All of my life I've been told that I had all the tools that I need-ed, you hold me close and you pull me tight,
Pno.
15
how can I take back my free-dom from The step you're on From far out here
Pno.


19
we seem so small, as if the dis - tance was no - thing at all.
Pno.
22
Tall jag - ged blue Soft fad - ed green com - bine to one
Pno.
25
ston - y path where I see The step you're on seems a bit too far
Pno.


36
you hold me close and you pull me tight, how can I take back my free-dom from The step you're on
Pno.
39
And so for to - day I re - main, And so for to - day
Pno.
42
I re - main, ev - er de - feat - ed, yet
Pno.

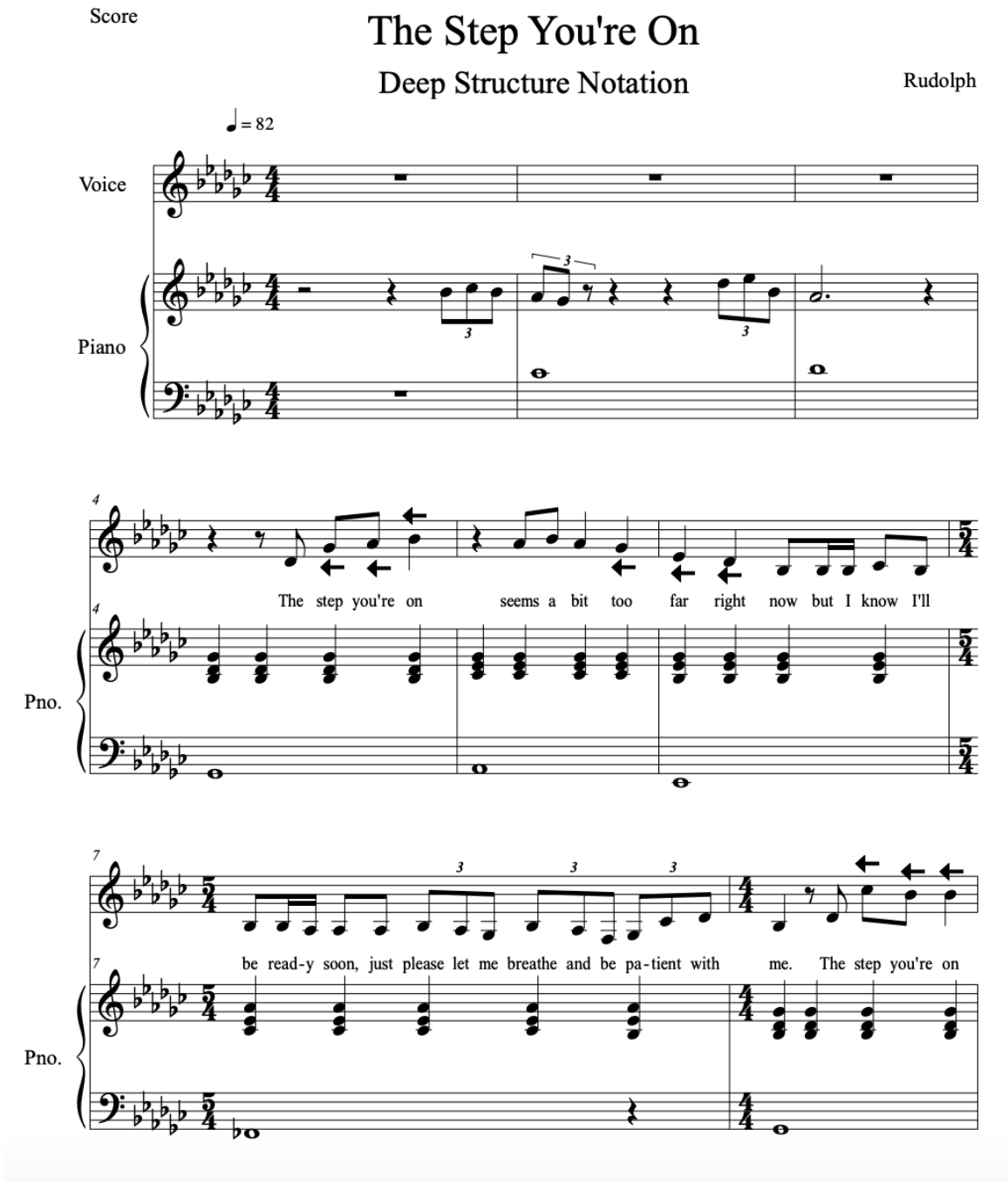

45
un - de - feat - ed.
All of my life I've been wait-ing for
Pno.
48
some-one who's just what I need-ed, you hold me close and you don't keep score, how can I take back my free-dom
Pno.
51
from
The step you're on
Pno.

NOTES ON APPENDIX A

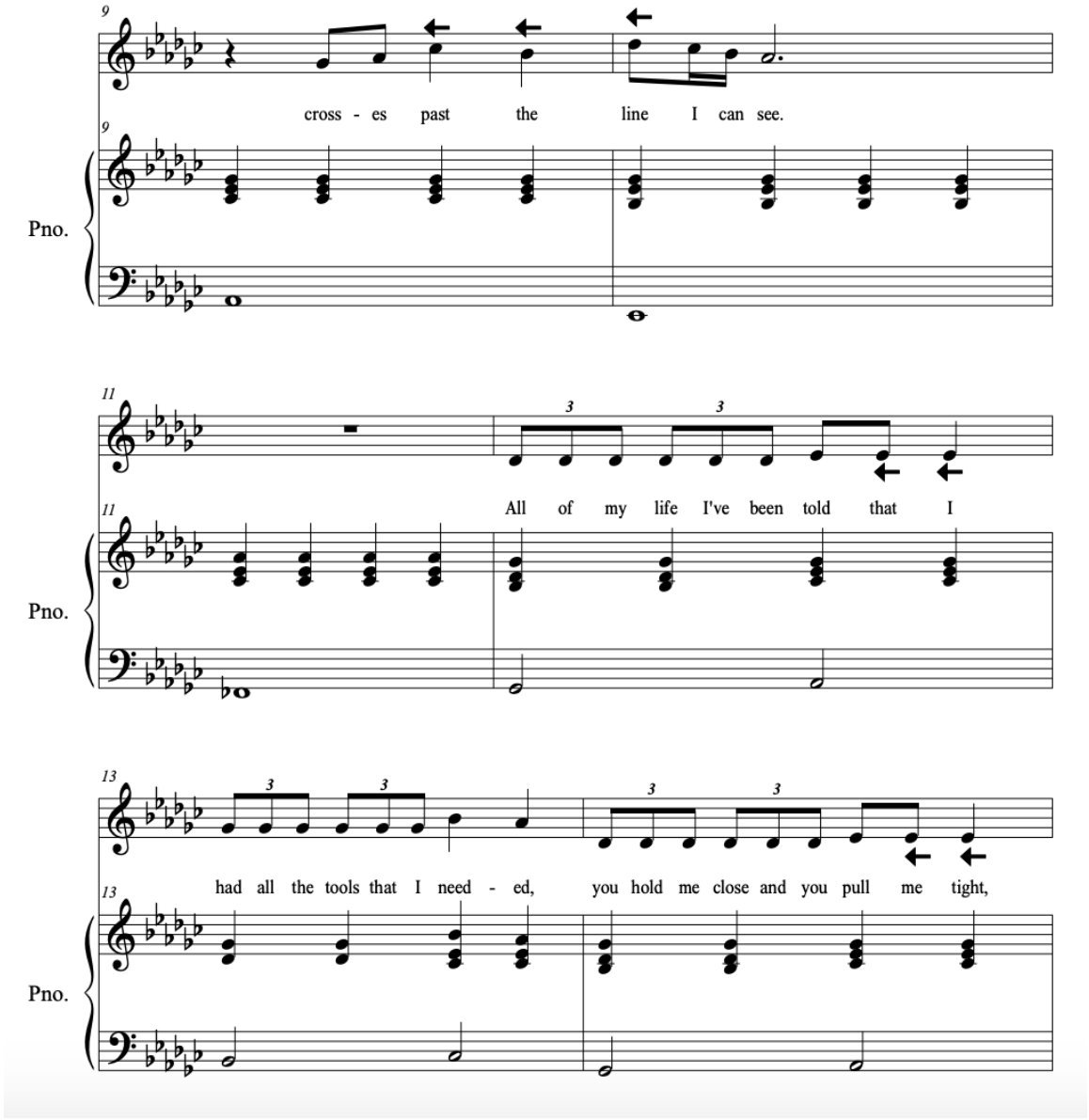
Printed key is the original key it was performed in during Rudolph Lecture Recital on February 24, 2021.

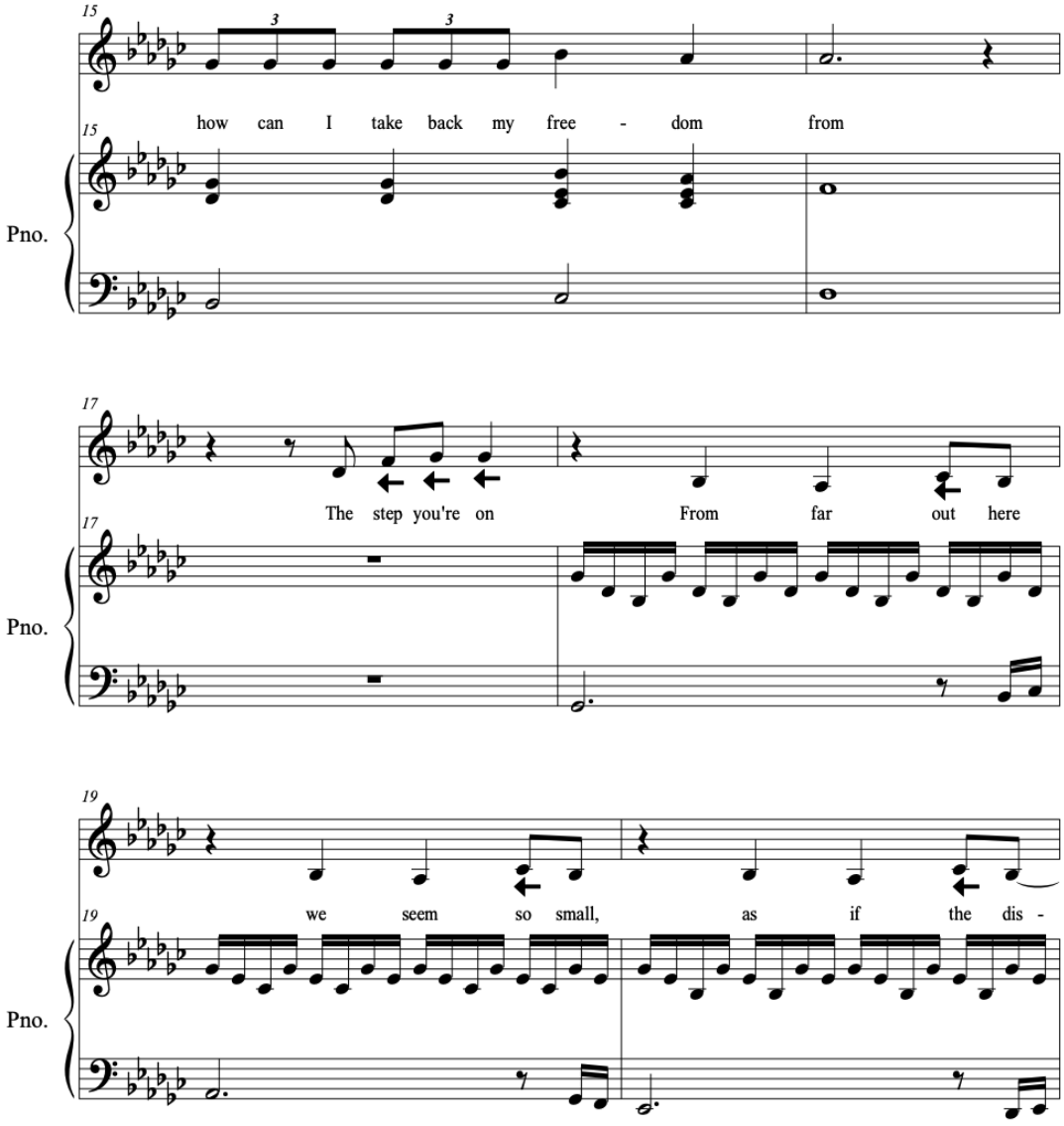
APPENDIX B

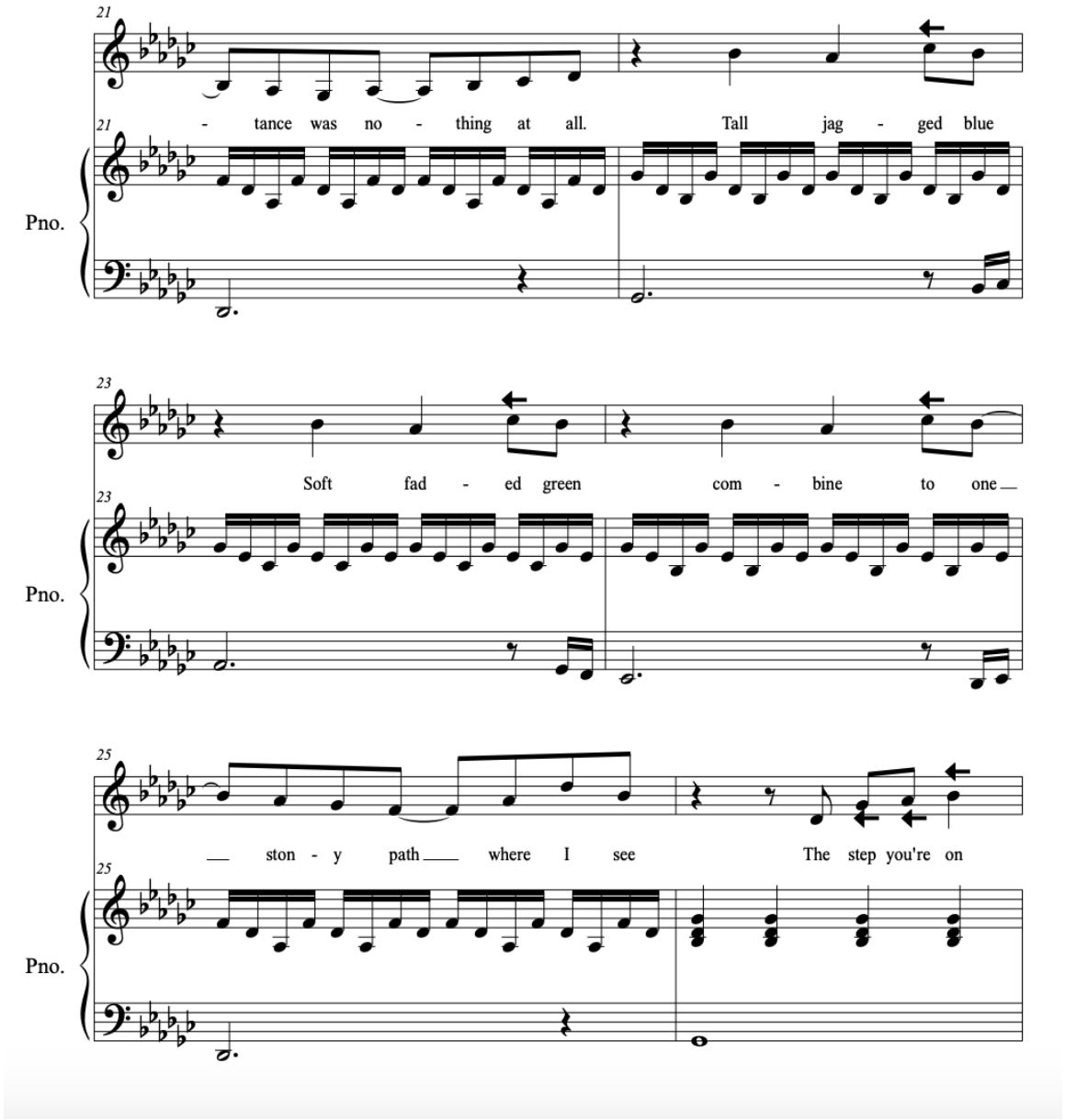
THE STEP YOU'RE ON: DEEP STRUCTURE NOTATION

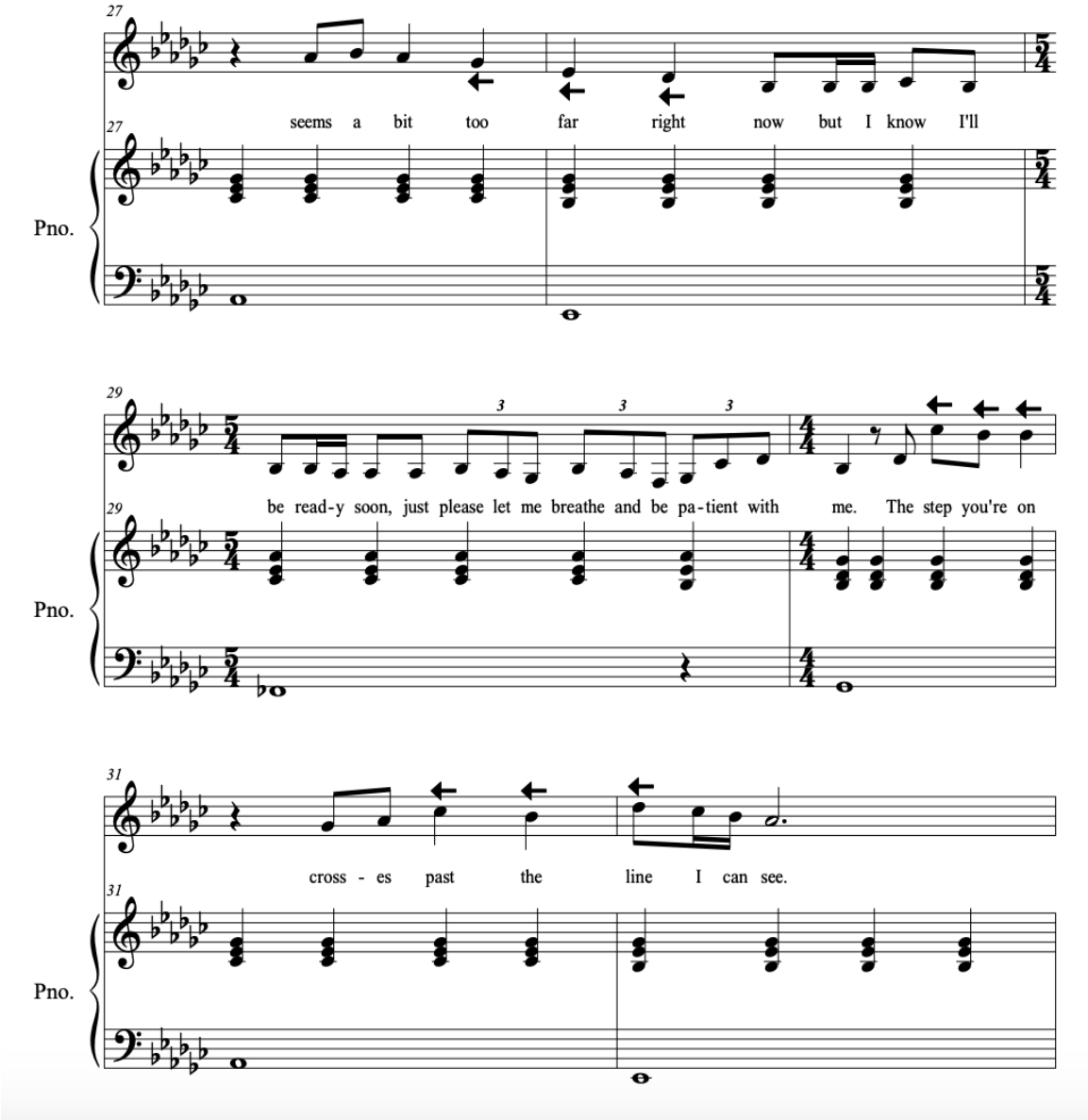

Score
The Step You're On
Deep Structure Notation
Rudolph
♩ = 82
Voice
Piano
The step you're on seems a bit too far right now but I know I'll
Pno.
be read-y soon, just please let me breathe and be pa-tient with me. The step you're on
Pno.

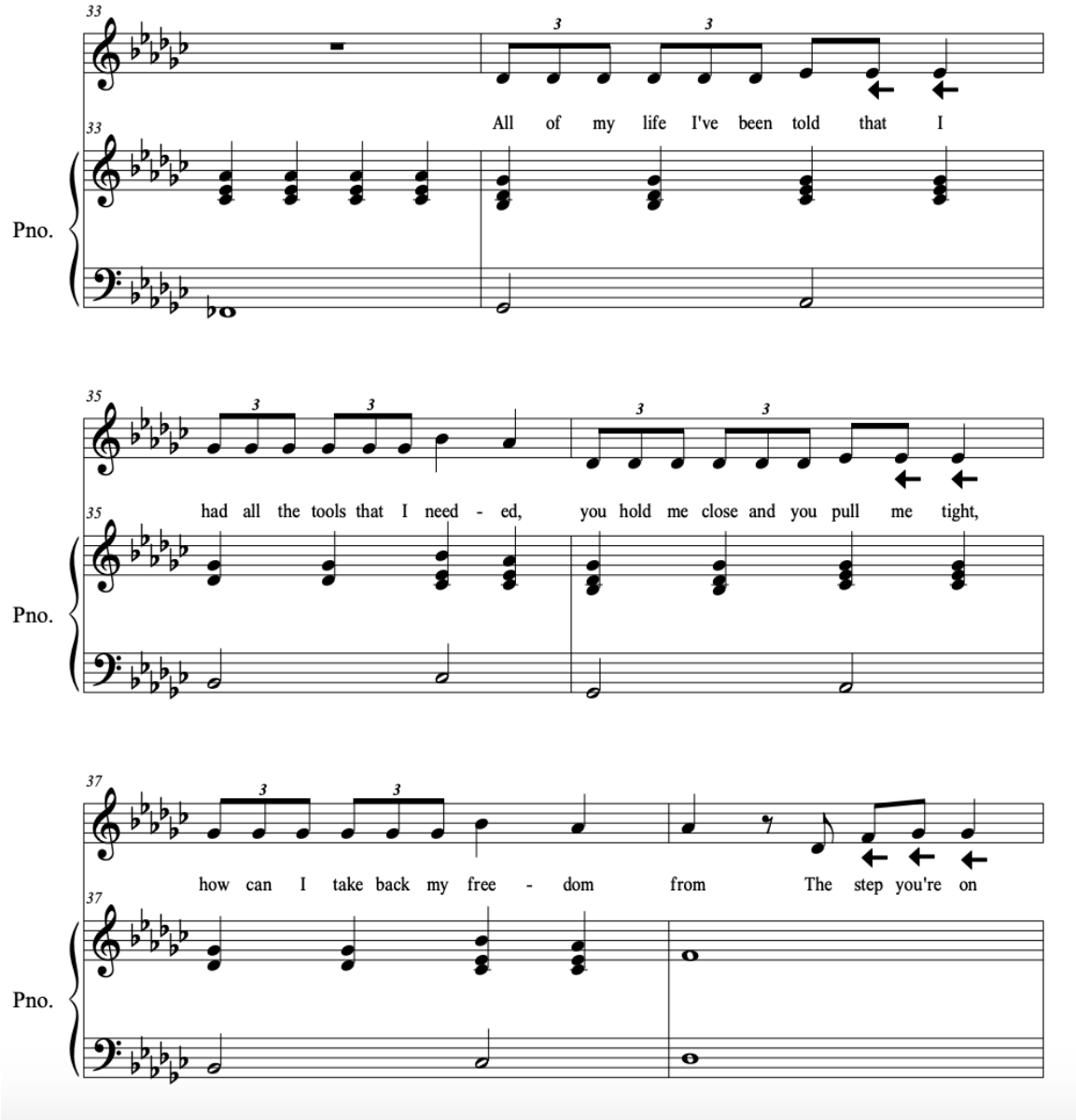
45

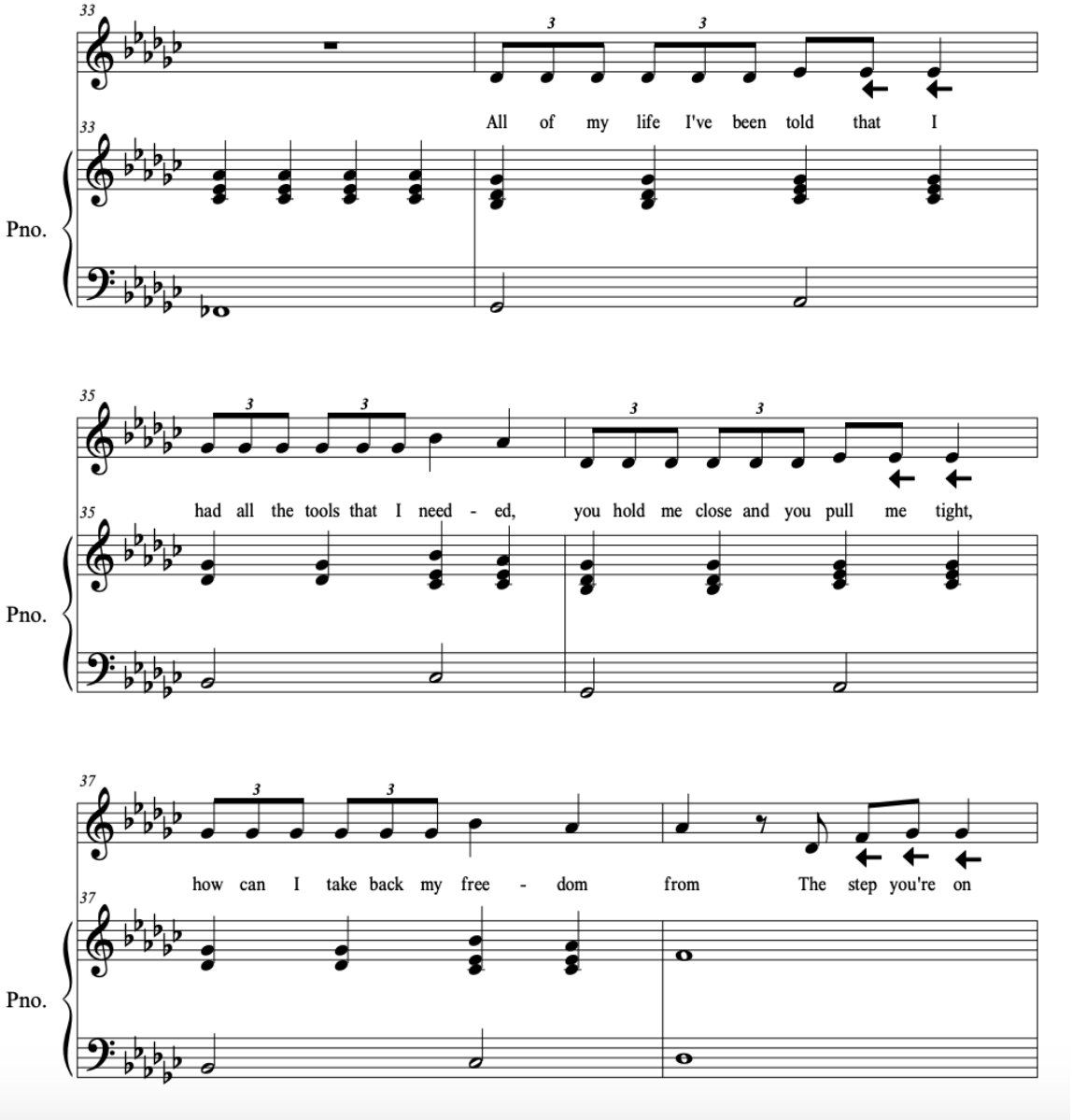

9
cross - es past the line I can see.
Pno.
11
All of my life I've been told that I
Pno.
13
had all the tools that I need - ed, you hold me close and you pull me tight,
Pno.

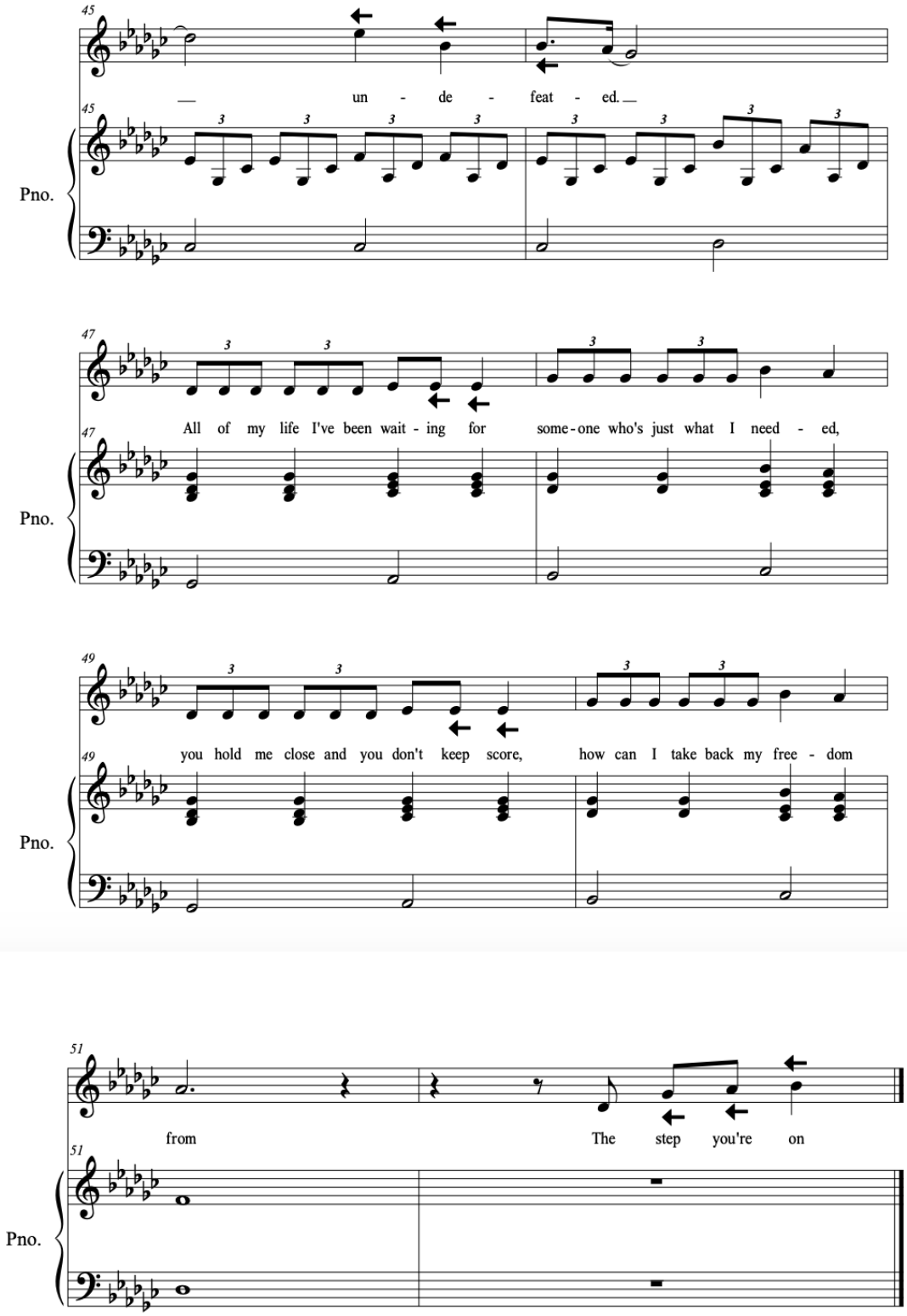

15
how can I take back my free - dom from
Pno.
17
The step you're on From far out here
Pno.
19
we seem so small, as if the dis -
Pno.


21
- tance was no - thing at all. Tall jag - ged blue
Pno.
23
Soft fad - ed green com - bine to one
Pno.
25
ston - y path where I see The step you're on
Pno.


27
seems a bit too far right now but I know I'll
Pno.
29
be read-y soon, just please let me breathe and be pa-tient with me. The step you're on
Pno.
31
cross - es past the line I can see.
Pno.


33
All of my life I've been told that I
Pno.
35
had all the tools that I need - ed, you hold me close and you pull me tight,
Pno.
37
how can I take back my free - dom from The step you're on
Pno.


33
All of my life I've been told that I
Pno.
35
had all the tools that I need - ed, you hold me close and you pull me tight,
Pno.
37
how can I take back my free - dom from The step you're on
Pno.


45
— un - de - feat - ed. —
Pno.
47
All of my life I've been wait - ing for some - one who's just what I need - ed,
Pno.
49
you hold me close and you don't keep score, how can I take back my free - dom
Pno.
51
from The step you're on
Pno.

NOTES ON APPENDIX B

Printed key is the original key it was performed in during Rudolph Lecture Recital on February 24, 2021.

General guidelines for arrows:

1. The arrows generally reflect a displaced note by half of its value. For example, if there is an arrow underneath an 8th note it would be pushed forward a 16th note before the beat.
2. Multiple arrows in a row will remain at the same level of syncopation. As you can see on the left side of the screen here, the three consecutive arrows indicate three instances of syncopation equally displaced by a 16th note.
3. Solid groove and ability to handle the stress & meter conflict would be the most important goal, over any slight discrepancies that occur at the 16th note pulse level.

While this is a possible benefit to their use, it also reveals a limitation to the notation itself: it heavily favors passages with evenly displaced syncopations. Every time there is an arrow, it is indicating a movement away from a normally strong beat. These strong beats become like guideposts for a singer navigating complex syncopations. They are visual indicators of the internal rhythmic structure of the vocal line, and this can help the singer not drag or more commonly, rush during syncopations.

APPENDIX C

WRITTEN PERMISSION FOR PRINTED MUSIC

GODSPELL

BOOK COPYRIGHT © 1971 THE CATHEDRAL OF ST. JOHN THE DIVINE, SIDNEY FEINBERG, AS TRUSTEE UNDER THE WILL OF JOHN-MICHAEL TEBELAK FOR THE BENEFIT OF ABBY WILLIAMS; ABBY WILLIAMS, AS BENEFICIARY OF SUCH TRUST; TRUDY WILLIAMS; WILLIAM CRAWFORD III; RICHARD HANNUM, AND STEPHEN SCHWARTZ

MUSIC AND NEW LYRICS COPYRIGHT © 1971, 1989, 2012 RANGE ROAD MUSIC, INC. (ASCAP) QUARTET MUSIC (ASCAP), AND S & J LEGACY PRODUCTIONS LLC (ASCAP)

"ALL GOOD GIFTS"

MUSIC AND NEW LYRICS BY STEPHEN SCHWARTZ (ASCAP)

COPYRIGHT © 1971, 1989, 1999, 2012 RANGE ROAD MUSIC, INC. (ASCAP), QUARTET MUSIC (ASCAP) AND S & J LEGACY PRODUCTIONS LLC (ASCAP)

ALL RIGHTS ADMINISTERED BY ROUND HILL CARLIN, LLC AND BMG RIGHTS MANAGEMENT (US) LLC.

ALL RIGHTS RESERVED. USED BY PERMISSION.

"BY MY SIDE"

MUSIC BY PEGGY GORDON (ASCAP), LYRICS BY JAY HAMBURGER

COPYRIGHT © 1971, 1989, 2012 RANGE ROAD MUSIC, INC. (ASCAP), QUARTET MUSIC (ASCAP) AND S & J LEGACY PRODUCTIONS LLC (ASCAP)

ALL RIGHTS ADMINISTERED BY ROUND HILL CARLIN, LLC AND BMG RIGHTS MANAGEMENT (US) LLC.

ALL RIGHTS RESERVED. USED BY PERMISSION.