Musical examples can be accessed here: http://goo.gl/xcPU92

Transcription as Analysis: Multiple Metric Readings and Their Expressive Implications in Bob Dylan's "With God on Our Side"

[1] The 1960s and 70s saw the emergence of the singer-songwriter style, which featured acoustic performances by solo artists who were the composers and lyricists of their own music. Reflecting the culture of that period, their songs carried messages of personal and political significance. But their music is of technical as well as social interest, particularly with regard to metric flexibility. This is evident in the music of artists like Bob Dylan whose 1960s songs often demonstrate flexible timing and moments of disrupted metric regularity that seem to occur to highlight specific aspects of lyrical structure and meaning.[1]

[2] Dylan's repertoire is of particular interest to a study of meter in that it often features extreme changes to meter and timing between different performances of a song, and sometimes even between different strophes of the same performance.[2] One example is "With God on Our Side," released on *The Times They Are A-Changin'* (1964), the metric features of which challenge representation in a single, fixed meter in transcription, even of a single performance. On the studio recording, for example, fluctuations in timing make it difficult to choose a tactus. Whichever tactus is chosen, it must be heard to be grouped inconsistently, with stretches of clear compound-quadruple meter gradually changing to compound-triple. Other recordings of the song, from live performances between 1963 and 1965, are entirely in compound-triple meter, or switch freely between compound-triple and compound-quadruple. Additionally, Dylan's strumming pattern in the studio recording demonstrates passages of increased rhythmic density that, in their apparent addition or deletion of beats, make a transcription in a steady meter incomplete or even misrepresentative.

[3] In the act of transcribing a performance of "With God on Our Side" the transcriber must choose a particular metric theory to inform the act transcription by dictating which components should be represented. But these decisions require the analyst to disregard other, possibly expressive, aspects of meter that could be brought out in a transcription

[1] A similar approach has been applied to the music of several country music songwriters, whose manipulations of song structure contribute to the overall sound and meaning of particular performances; see Neal 2000.
[2] Rings 2013 examines the 45-year transformation of Dylan's song "It's Alright, Ma (I'm Only Bleeding)" and addresses some of the changing metric features.

informed by other theories of meter. This paper will examine transcription as an act of analysis, demonstrating that different transcriptions of a single recording bring out nuances of lyrical meaning not found in other theoretical approaches to transcription. This study first addresses the problems of metric representation in commercial sheet music and guitar tabs, and then analyzes several transcriptions of "With God on Our Side" informed by theories of meter as grid, meter as process, and poetic meter, with a discussion of how each detailed metric reading highlights the structure and meaning of the lyrics.

Metric Theory

[4] To describe precisely the sensations of meter in connection with lyrics, we can draw on various theories of meter for analysis. This study proceeds on the view that there is no single conception of meter that accounts for all the productive ways we might hear time to be measured in the singer-songwriter repertoire. Indeed, using several theories of meter to inform multiple transcriptions can uncover aspects of meter that bring out different lyrical meanings.

[5] A precedent for such an inclusive view of meter is Joti Rockwell's (2011) account of "crookedness" in the Carter Family's bluegrass tunes. His study drew together "various strands of rhythm and meter theory, which he identifies as "architectonicism" (following Lerdahl and Jackendoff 1983, Temperley 1999, Krebs 1999, and Butler 2006, among others), "meter as process" (Hasty 1997), and "metric entrainment" (informed primarily by London 2012, Repp 2005, and Huron 2006), and which are manifest in two current analytical approaches to meter: imagining meter in terms of time points on a multi-leveled "grid" of strong and weak beats, where multiple layers of isochronous beats occur within the perceptual limits for entrainment; and understanding meter as a process of reproducing durations. To these approaches it is helpful to add concepts from poetic meter (following Halle and Lerdahl 1993), which in texted music can provide another basis for hearing periodicities. If meter is (among other things) a matter of measuring, these are the most common types of measurement and our understanding of Dylan's metrically flexible music will benefit from a comparison of these three approaches.

Popular Music and Transcription

[6] In order to apply metric theories in written analysis, it is necessary to represent each performance by musical transcription. However, as Jocelyn Neal (2002) suggests, the act

of transcription is not "theoretically neutral," but rather it is an interpretation in which the chosen notational system manifests the transcriber's particular theoretical conceptions. For any one transcription, the transcriber must make analytical decisions, informed by a particular metric theory, about which components are essential and should be represented.

[7] Available transcriptions for the singer-songwriter repertoire are often inadequate for performance-specific metric analysis. These types of scores typically come in the form of commercial sheet music and guitar tablature (tabs) and tend to specify enough of a song's harmonic, lyrical, and melodic content to inform cover versions of a song. However, when songs have a variety of different performance manifestations – which is the case with many examples from Dylan's repertoire – these scores often normalize meter to the closest idealized version. Indeed, Rockwell (2011, 69) finds this to be the case for sheet music of Carter Family songs, in which tactus-level irregularities are removed and performers are expected to modify the rhythms by referring to original recordings. Acting as "prescriptive transcriptions" (Seeger 1958, 184), these scores are blueprints for realization of a song, not descriptions of the sounding events of a specific performance, particularly with regard to meter.

Keyboard Transcriptions

[8] Another type of inadequacy stems from the nature of available transcription formats. Transcribing keyboard accompaniment requires staff-based illustrations, which offer the opportunity for more accurate accounts of rhythm and meter than other options we will explore below. However, common-practice notation, despite some flexibility in the form of tempo markings and fermata symbols, often assumes a regular and hierarchical meter, which cannot indicate realized durational proportions very well. As we shall see, rhythmic accuracy and metric interpretation varies in these kinds of transcriptions.[3]

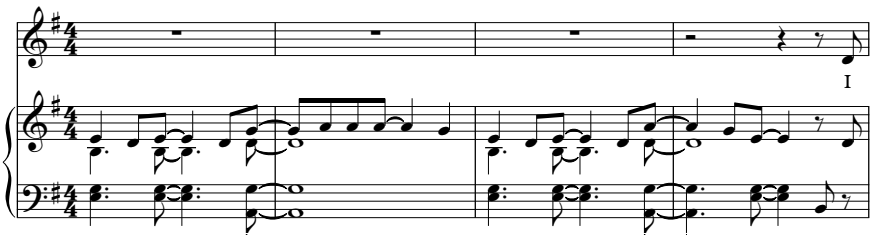
[9] Sheet music for the introduction (0:00-0:44) of Joni Mitchell's song "Woodstock" (*Ladies of the Canyon* 1970) provides striking examples of the problem of transcription accuracy. An audio clip of this passage has been provided in Example 1. Most of the song

[3] There are several keyboard transcriptions of Joni Mitchell's songs that do accurately represent the rhythms of her studio recording; three such examples are the scores for "Blue," "Lesson in Survival," and "The Last Time I Saw Richard" (Blackburn 2014a; Blackburn 2014b; Mitchell 2013).

is in a clear 4/4 meter, but the introduction features fluctuations in timing, with moments of metric salience giving way to slower passages that do not fit clearly into a meter. Scores available for this song either offer a simplified re-composition of the material or accurately account for pitch content but not for sounding durations. Additionally, some of them neglect to take into consideration a fundamental principle of metric analysis: parallelism, as outlined in Lerdahl and Jackendoff's *A Generative Theory of Tonal Music* (1983, 51-53), which encourages reading parallel groups as having parallel metric structures. Two transcriptions of Mitchell's song demonstrate several of these problems.

[10] The score of "Woodstock" available from publisher Hal Leonard (2014) is identical to the illustration provided in Figure 1, which entirely avoids any engagement with the timing and pitch contents of the studio recording by completely re-conceptualizing Mitchell's introduction.

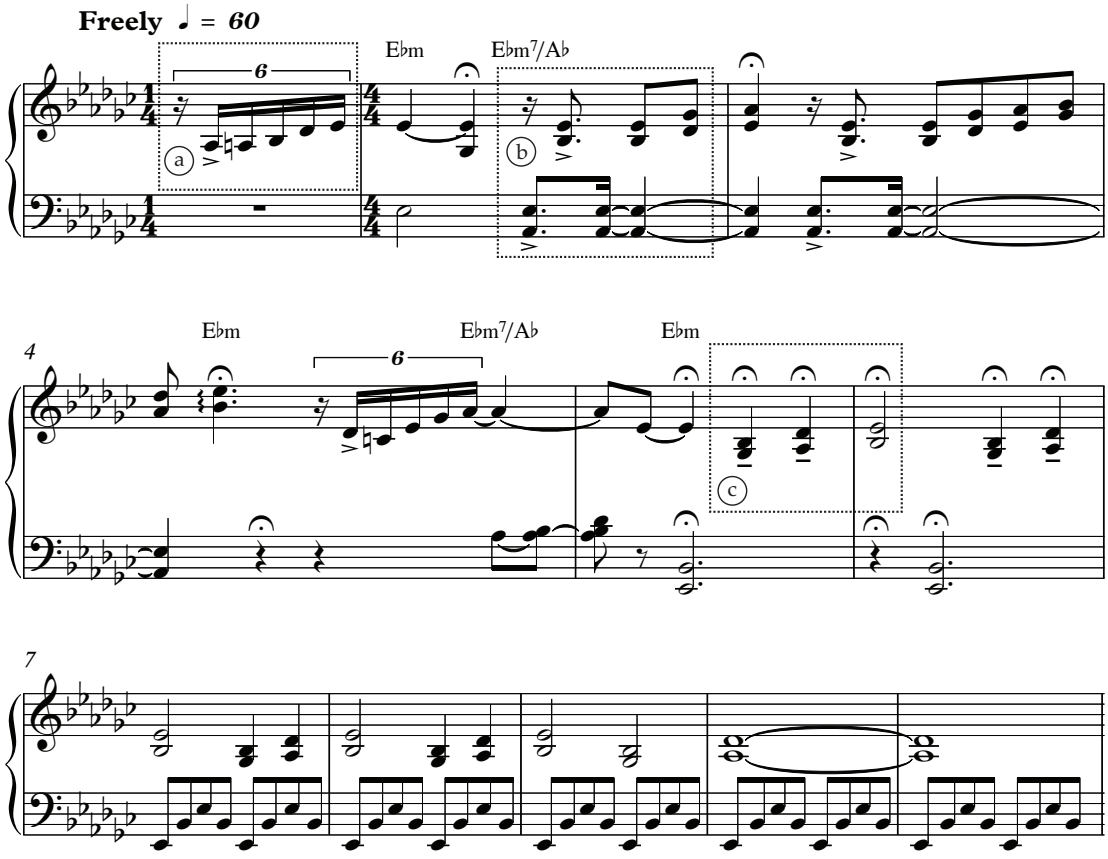
Figure 1: Joni Mitchell, "Woodstock," introduction from Hal Leonard Sheet Music



This score substitutes the 47-second introductory passage from *Ladies of the Canyon* track with four measures of different, metrically regular material. In contrast, the transcription by Michael Dunn (2014), available on Mitchell's fan-maintained official website, accurately represents the pitches of the studio recording introduction but is inconsistent with several principles of metric theory. The primary issue is one of parallelism; Dunn's transcription does not assign similar metric identities to the parallel harmonic and melodic structures labeled (a), (b), and (c) in the annotations on Figure 2. Motive (a) comprises a sextuplet figure; Dunn's transcription initially represents it as an anacrusis gesture to a strong beat, but when it returns in m. 4, it is instead notated as leading to a weak beat (the last beat of the 4/4 measure). Similarly, the first instance of the (b) motive is notated at first on the strong third beat of the first complete measure, and so attributes a metric accent to the dynamically-accented left-hand {A-flat2, E-flat3}

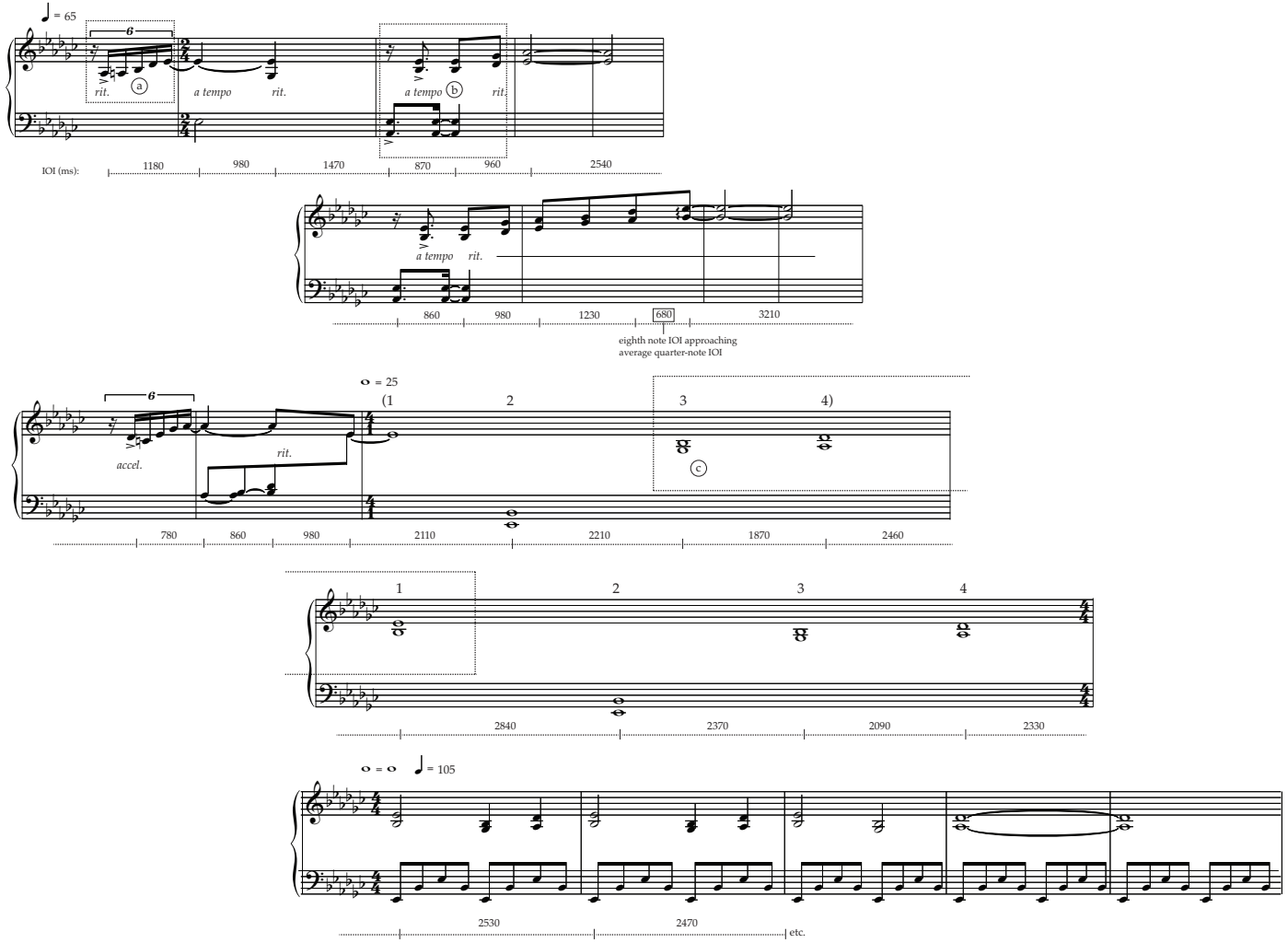
dyad. However, when this motive is immediately repeated, the transcription denies metric accent to that event, notating it on the second beat of m. 2. Further, Dunn's inclusion of fermatas does not indicate their specific duration. A performer reproducing Mitchell's studio recording from this score would be accurately reproducing her pitch content, but only approximating the rhythms.

Figure 2: Mitchell, "Woodstock," introduction from Michael Dunn's transcription



[11] To correct these inconsistencies, I provide a revised transcription (Figure 3) that assigns similar metric identities to parallel motivic occurrences (which are aligned in the diagram) and that notates accurate durations and proportional spacing for the rhythms of Mitchell's performance timings. This new transcription places the second sextuplet motive (a) as an anacrusis leading to the downbeat at the beginning of the second system. The (b) motive is also given parallel treatment, with the beginning of each statement shown occurring on a downbeat.

Figure 3: Mitchell, "Woodstock, introduction transcription prioritizing parallelism and timing



Bar lines are shown only where the motivic content or pitch centricity (around E-flat) suggests a metric accent. From the aforementioned parameters, a two-beat structure emerges (notated as a 2/4 meter) giving motives (a) and (b) more specific metric identities: motive (a) always occurs after a sixteenth rest, to complete an entire 2/4 measure, and (b) always begins on a downbeat. Additionally, the proportionally spaced interonset interval (IOI) values (in milliseconds) indicate how the timing of the middle system relates to the subsequent metrically regular material. This transcription provides a metric analysis of Mitchell's performance that complies with metric theory and shows how the repeated pitch content suggests an emerging, but flexibly timed, hierarchical meter. These features were obscured in Dunn's transcriptions, but brought out by this metrically informed reading.

Guitar Chords and Tabs

[12] Transcriptions that do not use common-practice notation similarly involve certain assumptions about rhythm and meter that affect how accurately timing can be represented. For instance, with popularly practiced types of guitar transcriptions, meter is almost entirely regular, if represented at all. One transcription option for guitar is to list chord changes (with chord names such as "G7" or small fingering charts) above the lyrics, and align the chosen symbols with the syllables on which they occur, as exemplified in the guitar transcription (Østrem 2014b) of Bob Dylan's "With God on Our Side" shown in Figure 4.

Figure 4: Dylan, "With God on Our Side," guitar lyrics-and-chords transcription

```
|F    |Em   |G  G6 G7   |C

        C             F Em
Oh my name it ain't nothin'
   G    G6  G7    C
My age it means less
```

At the very least, this transcription style shows a loose relationship between harmonic change and poetic meter, in that a reader with musical knowledge might infer that a chord change and prosodic stress on "name" indicates that the word should be accented. But realistically, the reader must be familiar with one of Dylan's performances to know, for example, that the three chord changes on the words "age it means" last the same

amount of time as the F on the first syllable of “nothing.” This notation merely functions as a guideline to indicate which lyrical syllable should align with harmony changes.

[13] Guitar tabs are another option for transcription; they account for the pitch content of chords using numeric patterns on rows of dashed lines that correspond to guitar strings. A tab can provide slightly more information with regard to musical meter than the lyrics-and-chords representation. Based on the chord progression from Figure 4, I have created a tablature for “With God on Our Side.”[4]

Figure 5: Dylan, “With God on Our Side,” guitar tab

```
  F             Em                          G   G6  G7    C
  :   .   .     :   .   .     :   .   .     :   .   .     :   .   .
|-1---1---1---|-0---0---0---|-0---0---0---|-3---3---3---|-0---0---0---|
|-1---1---1---|-0---0---0---|-0---0---0---|-0---0---0---|-1---1---1---|
|-2---2---2---|-0---0---0---|-0---0---0---|-0---0---0---|-0---0---0---|
|-3---3---3---|-2---2---2---|-2---2---2---|-0---2---3---|-2---2---2---|
|-------------|-2---2---2---|-2---2---2---|-2---2---2---|-3---3---3---|
|-------------|-0---0---0---|-0---0---0---|-3---3---3---|-0---0---0---|

                              F             Em
  :   .   .     :   .   .     :   .   .     :   .   .     :   .   .
|-0---0---0---|-0---0---0---|-1---1---1---|-0---0---0---|-0---0---0---|
|-1---1---1---|-1---1---1---|-1---1---1---|-0---0---0---|-0---0---0---|
|-0---0---0---|-0---0---0---|-2---2---2---|-0---0---0---|-0---0---0---|
|-2---2---2---|-2---2---2---|-3---3---3---|-2---2---2---|-2---2---2---|
|-3---3---3---|-3---3---3---|-------------|-2---2---2---|-2---2---2---|
|-0---0---0---|-0---0---0---|-------------|-0---0---0---|-0---0---0---|
         Oh my name it means no-            thing                 my

 G    G6  G7    C
 :    .   .     :   .   .     :   .   .     :   .   .
|-3---3---3---|-0---0---0---|-0---0---0---|-0---0---0---|
|-0---0---0---|-1---1---1---|-1---1---1---|-1---1---1---|
|-0---0---0---|-0---0---0---|-0---0---0---|-0---0---0---|
|-0---2---3---|-2---2---2---|-2---2---2---|-2---2---2---|
|-2---2---2---|-3---3---3---|-3---3---3---|-3---3---3---|
|-3---3---3---|-0---0---0---|-0---0---0---|-0---0---0---|
 age it means  less.
```

I have included dots above the tab to illustrate a simple triple meter, with the pattern : . . indicating the strong (:) and weak (.) components of each group of three beats.[5] The dashed lines provide additional information for this metric pattern, with each dash corresponding to a quadruple subdivision of the beat.

[14] Despite the additional metric information provided by this tablature, it can be rather difficult to discern the tactus, slower beats, and syncopated rhythms from this format.

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[4] The bottom line indicates the lowest string (E2), and the top, the highest string (E4). Numbers appearing in the place of a dash correspond to a fret on the fret board that should be depressed while strumming.

[5] This illustration of meter follows the practice outlined in the catalogue of Dylan guitar tabs maintained by Eyolf Østrem (2014a).

Indeed, players tend to grasp them only approximately from the proportional spacing of the tabs, then firm them up by mimicking the recorded performance the tab represents. Additionally, any metric irregularities (like those we will explore below in Dylan's studio recording) are typically omitted from these kinds of transcriptions, making them inadequate for the study of meter in specific performances.

[15] From the foregoing examples, it is evident that both guitar tabs and sheet music make certain assumptions about meter that at least do not account for actual performance timings and at worst attribute meter in a way that is inconsistent with well-accepted cognitive principles. The transcription in Figure 3 takes steps toward solving this problem by allowing metric theory to inform the transcription of motives and timing in the studio recording of "Woodstock." In the next section, we will examine three descriptive transcriptions of Dylan's song "With God on Our Side" that account for the precise durations of the studio recording, each representing different hearings based on several theories of meter. As we shall see, the prioritization of certain aspects of meter in transcription brings out different nuances of meaning in the lyrics.

Case Study: Multiple Metric Transcriptions of "With God on Our Side"

Lyrical Structure and Meaning

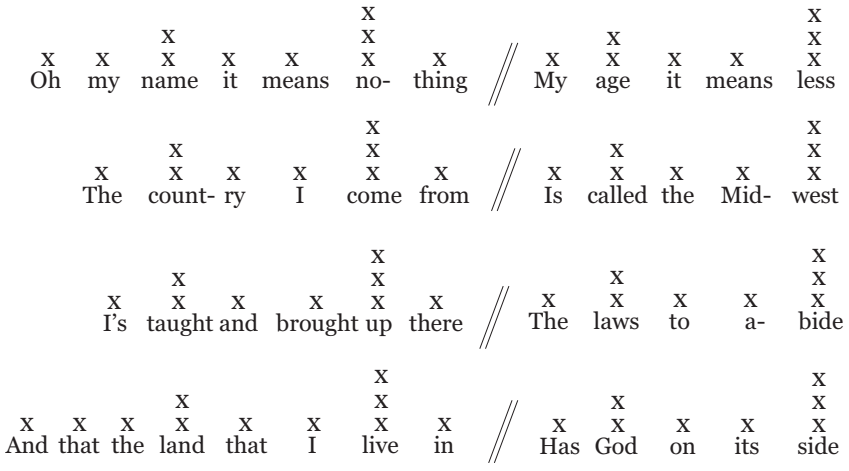
[16] We will begin our analysis of Dylan's "With God on Our Side" with an examination of the lyrics. He based the melody and text on Irish folk singer Dominic Behan's 1957 song "The Patriot Game," (Example 2) which memorialized the death of a young Irish Republican Army soldier.[6] Dylan's version begins outlining a sense of identity for his narrator (a young, white, Midwestern American man) before recounting historical events from World Wars, conflict with Russia, and threats of the Cold War.[7] His lyrics protest the use of religion to justify war ("For you don't count the dead/When God's on your side"), the ease with which alliances are made and broken for political convenience ("We forgave the Germans/And then we were friends"), and the ignorance of assuming divine support for only one side of a conflict, without consideration for the other side ("And you never ask questions/When God's on your side").

[6] A fuller history of this song and an account of its influence on Dylan's version can be found in Harvey 2001, 122-124.
[7] For insight into the song as part of a tradition of Dylan's Calvinist-inspired lyric writing, see Gray 1972, 22-24)

[17] Using text formats on Dylan's official website (Dylan 2014) and published lyric volumes (Dylan 2004b), the first eight-line stanza of Dylan's song is organized into four couplets in Figure 6, with the symbol // separating each paired line. The pattern of "X" symbols follows a theory of poetic meter analysis outlined by John Halle and Fred Lerdahl (1993, 5-9), which scans the syllables of a text for patterns of stressed and unstressed syllables and plots them onto a poetic stress grid.[8] The "X" symbols closest to the lyrics assign a symbol for each syllable. In polysyllabic words, as with the word "nothing," a symbol is placed at the next higher level on the contextually stronger syllable(s); in the case of the word "nothing," this would be the first syllable. The uppermost level interprets some syllables, such as the word "less" in the first line, as stronger stresses relative to other stressed syllables. Other readings of the poetry are possible, but this interpretation most closely matches the performed dynamic stresses of the vocal line in Dylan's performance.[9]

[18] The four couplets in Figure 6 each feature two stressed syllables, the second of which is relatively stronger.

Figure 6: Dylan, "With God on Our Side," lyrical stress grid



In the first half of each pair of lines, one to three weak syllables leads to the first strong syllable, which is indicated by an "X" one level up from the syllable symbol. After two or

[8] Similar stress grids can be found in studies applying principles of poetic meter to the analysis of nineteenth-century German lied, such as Krebs 1999 and Malin 2010.
[9] It should be noted that for scansion of singer-songwriter lyrics, the pattern of stress in performance is prioritized over creating a well-formed prosodic stress grid.

more weak syllables occurs the strongest stress of each line, which is followed by a weak syllable. To give an idea of how this stress pattern is carried through the rest of the song, Figure 7 includes an annotation of verses 4 through 7, which underlines the two stresses and bolding the stronger second stress.

Figure 7: Dylan, "With God on Our Side," annotated lyrics, verses 4-7

VERSE 4	VERSE 6
Oh the first World **War**, boys It closed out its **fate** The reason for **fight**ing I never got **straight** But I learned to ac**cept** it Accept it with **pride** For you don't count the **dead** When God's on your **side**	I've learned to hate the **Rus**sians All through my whole **life** If another war **comes** It's them we must **fight** To hate them and **fear** them To run and to **hide** And accept it all **brave**ly With God on my **side**
VERSE 5	**VERSE 7**
When the second World **War** Came to an **end** We forgave the **Ger**mans And we were **friends** Though they murdered six **mil**lion In the ovens they **fried** The Germans now **too** Have God on their **side**	But now we've got **weap**ons Of chemical **dust** If fire them we're **forced** to Then fire them we **must** One push of a **but**ton And a shot the world **wide** And you never ask **ques**tions When God's on your **side**

Although the number of syllables in each line varies considerably, every line has two prosodic stresses, the second of which is stronger. As we can see, many of these stresses occur on the most significant words in the lyrics; as Dylan ranges across historical events from the nineteenth century wars to the Cold War, strong prosodic stresses typically land on words that are central to this lyrical narrative.

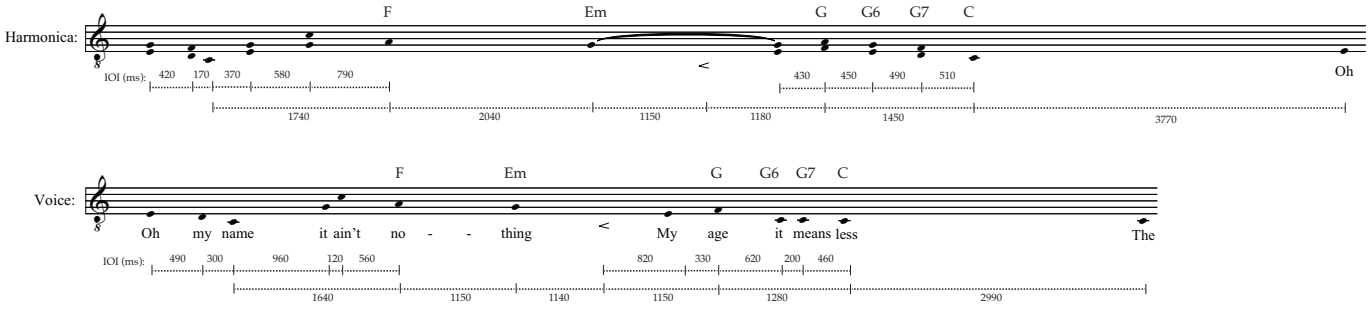
Musical Meter: Interpreting Metric Hierarchy

[19] The recurring stress pattern of these lyrics constitutes a type of meter not specifically tied to duration. But it could be heard to guide hearing and transcribing musical meter as a grid, with the stresses as metric or hypermetric downbeats. This conception would need to satisfy the systematic requirements for metric hierarchy and grouping, as outlined in Lerdahl and Jackendoff's *A Generative Theory of Tonal Music* (1983): the transcription should manifest an isochronous tactus, with at least one slower level grouping tactus beats; bar lines in the transcription help indicate which beats

within the grouping are heard to receive metric accent; and parallel motivic structures should be assigned similar metric identities.

[20] To satisfy these requirements, the transcriber must make some crucial decisions. One, which we have already encountered, has to do with how to interpret grouping parallelism. The first clear parallelism in "With God on Our Side" is evident between Dylan's harmonica introduction and the first vocal phrase, a clip of which is included in Example 3. The illustration in Figure 8 shows this parallelism by superimposing these two phrases (0:00-0:22) vertically, but representing them in a relatively un-interpreted way, providing only harmonic rhythm, text stress, and the IOI values below the staff to quantify the timing of the melodic pitches, harmonic rhythm, and text stress in milliseconds (ms).[10] The actual strumming patterns in the recording have not been thoroughly represented in this illustration, with exception to the dynamic strumming accents indicated by the accent symbols below both staves.

Figure 8: Dylan, "With God on Our Side," parallel first phrases with IOIs



[21] In a grid-based transcription, theory would assign similar metric properties to several parallel features of these phrases. Consider, for instance, the melodic A4s in both systems. Both have durational accent, and we may take this to indicate that both have metric accent, that is, placement on a strong beat. In the harmonica phrase, this sense of downbeat is reinforced by the onset of guitar accompaniment at that moment. In the vocal line, the harmony changes from C major to F major at the A4, an accent that coincides with the first syllable of the word "nothing."

[10] The guitar begins at the F major harmony indicated above the first A4 in the harmonica introduction and chord changes have been included above both systems.

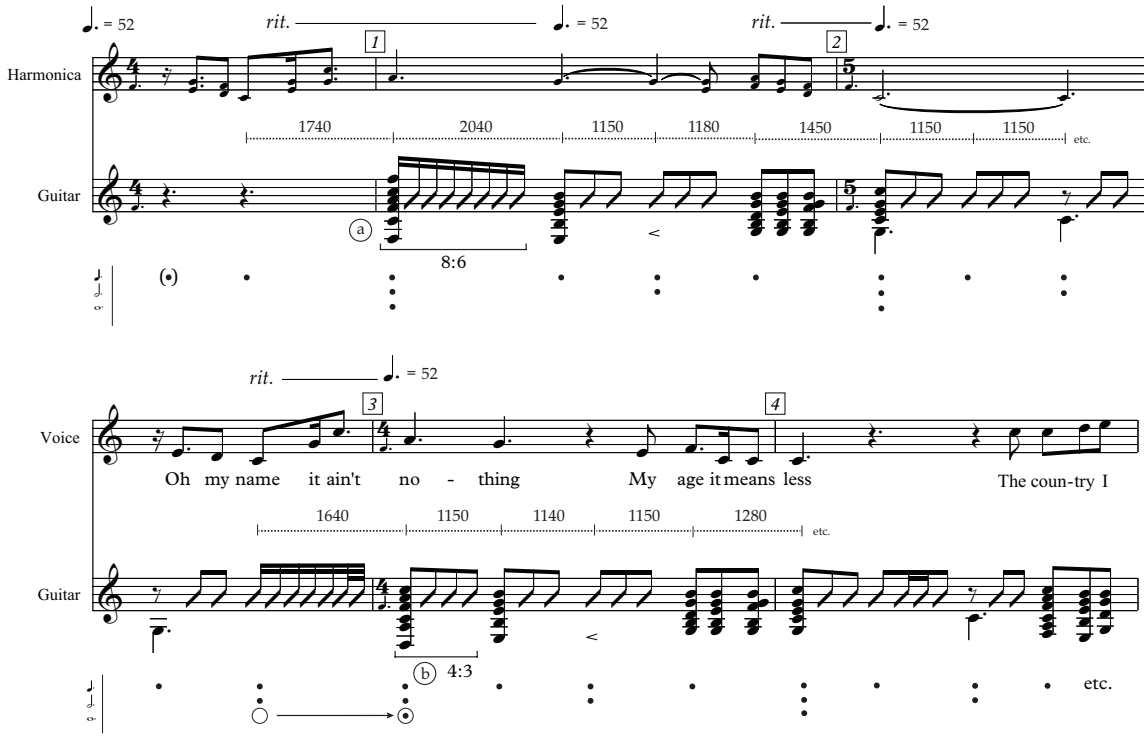
[22] Another clear parallelism between these two groups is the accelerating harmonic rhythm (G-G6-G7) that precedes each C major chord. The C takes durational accent, and so sounds like a strong beat in both cases. While parallelism thus helps establish some metric landmarks for any transcription, there is another essential component of grid transcription that needs to be decided: what is the tactus? Here, the choice is between hearing tactus beats at the changes of harmony and melody notes or at faster articulations, such as the G-G6-G7 chord changes and the rhythmic patterns in the accompaniment. The choice of tactus affects how the transcriber will metrically interpret the timing differences of the C4s and A4s, and therefore the material that precedes the A4 in each phrase. Several different grid-based interpretations of proportional durations, tempo fluctuations, and parallel grouping structures are possible. In the next two figures, I will discuss two; both assume a grid hierarchy within the well-formedness rules for meter, and are constrained by the requirements that the tactus IOIs lie within a 100 ms to 6 second range.[11]

[23] One transcription option is to assert as tactus the interonset values around 1150 ms that emerge midway through the harmonica system. These durations align with the onsets of larger-scale events like changes of harmony, melodic contour peaks, and declamation of text stress, which span dotted-quarter-note durations in Figure 9. Although the consistent repetition of this duration is not evident at the very beginning of the song, nor in some other passages, the grid theory (Lerdahl and Jackendoff 1983, 73-74) suggests treating longer IOIs as tactus beats if they span similar types of events, like chord changes. This figure does so, using *ritardando* symbols to explain any durational variation. Such an interpretation seems plausible, since each passage of *ritardando* is followed by a return to the 52-bpm tempo.

[24] Assigning 1150 ms IOI values as tactus durations, we can attribute specific metric properties to the rhythms and their grouping. Shorter IOI values around 400-500 ms are represented in Figure 9 as eighth-note subdivisions of the dotted-quarter-note tactus. To explicitly indicate the choice of tactus, I have included a time signature that places a 4 (the number of tactus beats per measure) over the actual dotted-quarter-note tactus beat value.

[11] See London 2012, 27.

Figure 9: Dylan, "With God on Our Side," metric grid transcription with dotted-quarter-note tactus



Triple subdivisions, illustrated, for example, on beats 2, 3, and 4 of measure 1, are most common. However, in some passages, the guitar-strumming pattern creates greater attack density; tuplet brackets below the staff in the transcription indicate these passages. At (a) for example the ratio 8:6 indicates that eight sixteenth notes are occurring in the span of six. The ratio 4:3 at (b) labels a quadruple subdivision of the tactus. By making the same subdivision here as he did at (a), Dylan helps us to hear the parallelism between these two moments. Theoretical justification for these irregular groupings in the metric hierarchy can be found in Lerdahl and Jackendoff's (1983, 72) metrical well-formedness rule 4, which allows for freedom in the number of beats that subdivide the tactus as long as the beats are evenly spaced. The dots below the staff indicate the grid conception of meter: that the tactus and slower beats that group it are conceptually isochronous; and that changes in interonset intervals are the result of *ritardandi* and *accelerandi*.

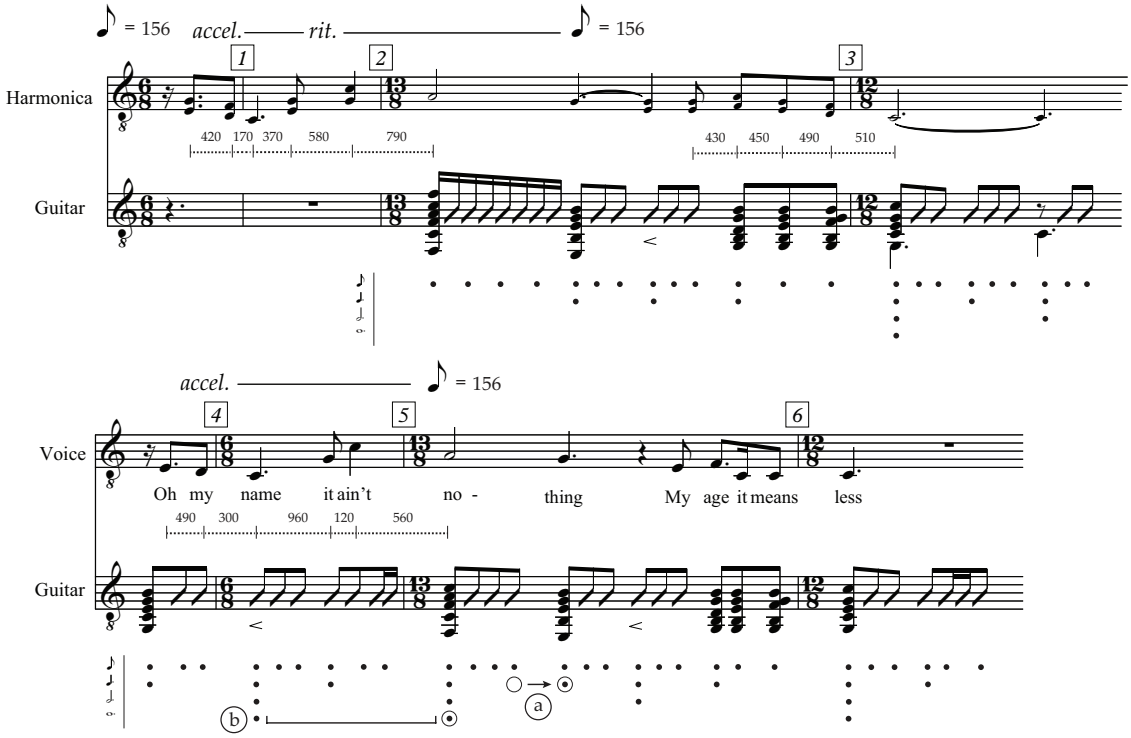
[25] At the larger scale, a particular instance of non-isochrony is better explained by the theory as the product of grouping parallelism. In the harmonica introduction, since we hear the main accents on the onsets A4 and C4, and because we hear chord changes

articulating the tactus, we understand the meter as quadruple, that is, the timespan from A to C is four beats. In the vocal phrase, the 1640 ms IOI between “name” and “nothing” parallels the longer 1740 ms tactus beat duration from the harmonica phrase. So the A4 melodic pitch on the first syllable of “nothing” should appear on a downbeat, just as the harmonica’s did in the introduction. Similarly, the prosodic stress on “less” should sound parallel to the tonic harmony on the downbeat of bar 2, so it should also appear on a downbeat. Therefore, there are again four beats measuring the timespan. Since there are no other parallel structures to indicate a metric accent between the downbeat of bar 2 and that of bar 3, that timespan constitutes a single measure. But that measure contains five tactus beats, rather than four – that is, the strong beats are not isochronous. Gretchen Horlacher’s (1995, 288–289) analytical symbols help to conceptualize this; the symbols on the grid illustrate a metric shift at the dotted-whole-note level. The open circle indicates where the strong beat “should have” occurred in the grid (at “name”) and the circled dot identifies its reinterpreted location. The “5” in the time signature at measure 2 indicates the extra beat that results from these metric decisions.

[26] These choices about meter have interesting implications for the analysis of lyrics in this passage. The transcription draws attention to the accents on and significance of lyrical stresses, which as discussed earlier, Dylan arranges as essential words in his narrative. Metric accents in the first stanza bring out the lyrical theme, the many manifestations of which are described in the subsequent stanzas: divine power’s supporting one group’s persecution over another. Other readings of the poetry are possible, too, however, and we shall see that other aspects of meter, which other transcriptions bring out, emphasize those nuances.

[27] A second transcription option that uses a metric grid is built around a faster tactus, as shown in Figure 10. This transcription follows the durations created by the shorter IOIs between, for example, the G-G6-G7 chord changes and rhythms of the guitar accompaniment, considering each articulation of guitar strumming around a 450 ms IOI to be an eighth-note-tactus beat at a tempo of 156 beats per minute (bpm). These faster tactus beats, which correspond to the fast tactus subdivisions from the previous transcription, are salient because the guitar strums are regular and the tempo is not too fast to entrain.

Figure 10: Dylan, "With God on Our Side," metric grid transcription with eighth-note tactus.



A dotted-quarter-note grouping of tactus beats into threes becomes apparent around G4 in measure 2. And beats at this level align, as they did in the dotted-quarter-note tactus transcription, with changes of harmony, melodic motion, and dynamic accent.

[28] In passages of increased rhythmic density in the strumming, this eighth-note tactus transcription must accommodate "extra" tactus beats through metric reinterpretation in the grid and reconceptualization of the melody-note durations. At (a) for example, in Figure 10, an extra guitar strum creates a half-note duration for the A4 melodic pitch. In the previous transcription, this duration was a dotted-quarter note, lengthened by a *ritardando* to accommodate the faster rhythmic density of the guitar subdivisions. The half-note duration in this transcription is a conceptually different duration, spanning four eighth-note-tactus beats in the accompaniment. The dynamic accent on beat three of the fifth measure can be heard as expressively forcing our hearing back to triple, when we otherwise may have heard quadruple continuing. This is illustrated below the staff as a metric shift at the dotted-quarter-note layer. Once again, an empty circle indicates where the beat should have occurred, and an arrow points to the encircled dot at its new location, after a half-note duration. The difference in tactus, therefore, changes how time

is measured for the A4 duration and the accompaniment rhythms: triple in the previous transcription and quadruple here.

[29] A similar reconceptualization of duration is necessary at (b), between the words "name" and "nothing." Here, the guitar strums accelerate the tempo from 156 bpm to 187 bpm. In the previous transcription, this rhythm was interpreted as sixteenth notes with a *ritardando*, which results from conceiving of the chord change from C (at "name") to F (at the first syllable of "nothing") as a single tactus beat, subdivided irregularly. With attention in the dotted-eighth-note transcription drawn to each strum as a tactus beat, the guitar attacks in m. 4 are more easily interpreted as an accelerated eighth-note pulse stream, rather than a slowed sixteenth-note (312 bpm) stream. The *ritardando* sixteenth-note rhythm from the previous transcription is therefore re-conceptualized as accelerating eighth notes here. Prioritizing parallelism between the two phrases, the melody in m. 1 has been transcribed with identical rhythm and meter to the second system, with tempo markings above the staff accounting for timing discrepancies between inter-onset interval ratios and the ratios of the notated rhythms.

[30] Several features of the eight-note tactus transcription bring out nuances of lyrical meaning that are obscured in the other reading. For one, entraining to this tactus through physical gestures, such as conducting, aligns the listener's bodily response with the actual physical gestures of Dylan's strumming in this performance. A listener attending to these faster rhythms will likely notice the unpredictability of tempo and articulation in the strumming pattern, and draw a connection to the urgency of the narrator's delivery of the lyrical message.

[31] In a specific instance of interpreting lyrical meaning, the notation of "name" as a metric downbeat, with the eighth-note interpretation of accompanimental rhythm, results in a metric reinterpretation at the dotted-whole-note pulse layer between measures 4 and 5; this is symbolized by the bracket and circled dot in that layer of the grid analysis. The placement of this C4 on its own downbeat in the vocal phrase assigns a metric accent on "name" that marks this word for attention. The effect of this reading is particularly striking for the listener. Attention is drawn to the accent on "name" as a marker of the narrator's identity, (which is in the process of being established in the first stanza) only to reinterpret this accent, assigning a similarly strong musical stress to the

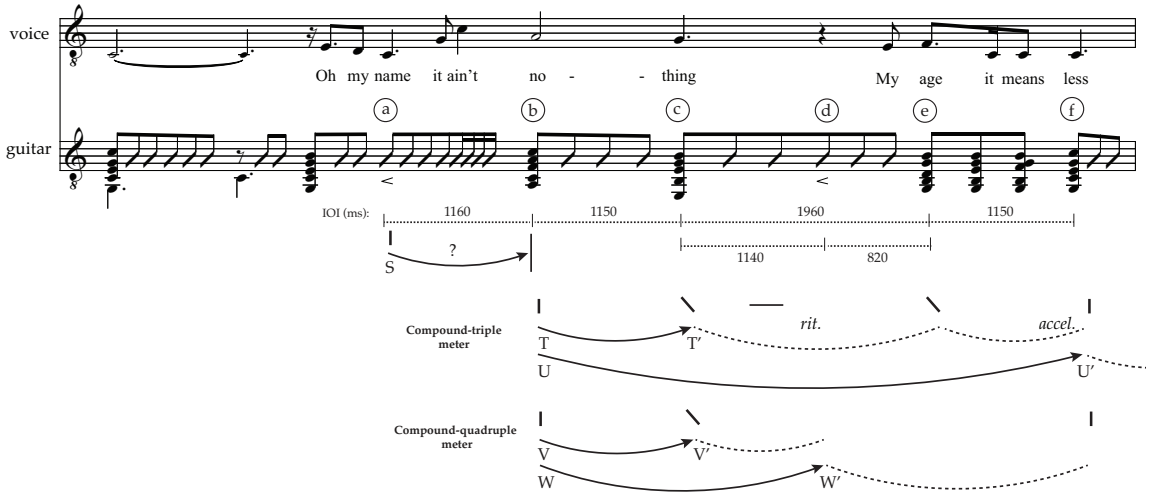
first syllable of "nothing." If the listener hears a strong-beat emphasis on "name" as affirming a strong identity for the narrator, this reinterpretation to another metric position at the same grid level portrays a similar reassignment of narrator's agency to membership within a collective group, which is one of the main themes of the lyrics. This meaning was latent in the dotted quarter-note transcription, but is brought out by this reading.

Metric Process Across Multiple Performances

[32] These grid-based transcriptions of "With God on Our Side" offer some options for analyzing the meter and meaning of the song's introduction. However, they do little to address the large-scale changes in meter within this song and in live performances. A third type of transcription, using a projective meter, offers another reading of the opening material and provides a means of analyzing the metric manifestations of the song in a compound-triple or compound-quadruple meter.

[33] This approach to transcription draws on Christopher Hasty's (1997) *Meter as Rhythm*, interpreting meter as a process of reproducing durations. In this theory, as Attas (2011, 8) describes, meter is "not a fixed grid superimposed on music, but a dynamic and changing understanding of musical durations that are themselves constantly in motion." In "durational projection," the listener hears an initial time span as having "projective potential" to be reproduced by the next emerging duration.

Figure 11: Dylan, "With God on Our Side," projective meter transcription



The onset of a duration functions as a "beginning," symbolized in the score by a vertical line (|) and the onset of a solid arrow, as shown, for example, with the S arrow in Figure 11.[12] The listener might choose to hear a beginning at (a) of duration S, which becomes definite (as an 1160 ms duration) at (b) at the next stressed lyrical syllable that initiates a 1150 ms duration. However, the events at (b), which received metric accent in the grid-meter transcriptions, create a stronger beginning (a "dominant beginning") in a projective meter that renders the beginning at (a) inactive. That is the beginning at (b) interrupts the potential for the S duration to be projective and have its 1160 ms duration be reproduced by the next emerging duration. A vertical line follows the S arrow and a question mark has been place above the arrow to indicate this interruption.

[34] The dynamic nature of Hasty's theory adds further nuance to the meaning of this moment that was uncovered in the eighth-note-tactus transcription. When a duration is realized and the next emerging duration functions to continue the initial projection (rather than begin a new series of durations), its beginning functions as a "continuation" of a previous dominant beginning. This is symbolized with a \ symbol above the initiation of a dotted slur, as with T' and V' in Figure 11. For Hasty (1997, 84), a continuation represents a decision "not to end or a decision against making a new beginning that would make the first beginning past or inactive." Interpreting an interruption of the S duration, denies a continuation of this duration and renders its metric potential as decidedly past. Any meaning of the narrator's "name," therefore, is replaced and overshadowed (in lyrical meaning and metric process) by the active and emerging durations begun at the word "nothing."

[35] The in-time sensations of meter as process add further nuance to the lyrical meaning of "name" and "nothing" brought out by grid-based transcriptions. Yet the interpretation of the interesting metric ambiguity that follows showcases a feature of process-based transcriptions not possible in those informed by a metric grid. At the largest scale of Figure 11, the events at (b) begin a longer duration U that is realized by the next important change at (f). U can be heard to begin with a shorter duration (T) completed at the next chord change at (c). The dotted slurs indicate that this duration can be heard as "projected," that is, we try to interpret the following events as reproducing the initial 1150 ms duration. But the timings of these events give us two

[12] This figure uses the same rhythms as the Figure 10 (eighth-note-tactus) transcription.

ways to hear this projection realized. Those ways are shown as two separate sets of arrows under the figure, proceeding respectively from the (b)-to- (c) duration, which is labeled in Figure 11 as solid arrows T and V.

[36] In one hearing, the listener chooses to hear T', the projected duration from (c) until the next chord change at (e), to reproduce the T duration. Since T' is actually longer that T, the realization entails a sense of *ritardando*. The next dominant beginning (f), which aligns with the lyrical stress on "less" comes too soon afterwards, such that the duration from (e) to (f) merely seems to "defer" (Hasty 1997, 133) its projective potential; since the duration is shorter than T', there is a sensation of acceleration. Thus, the long U duration is produced by T, T', and the deferral, which are indicated by the beginning (|), continuation (\) and deferral (- \) symbols on the transcription. In another hearing, the listener accepts this dynamic accent at (d) as completing the duration begun at (c), and to hear that duration as realizing V', the projection of V. This realization completes a longer duration W, that itself becomes projective.[13] The W' projection from (d) is then realized by the events at (f): the tonic harmony arrival and vocal stress on the word "less."

[37] The process-based analysis of this passage yields two structures that can be read as compound-triple and compound-quadruple hypermeter.[14] In some performance iterations, Dylan opts unambiguously for one or the other, even reducing the number of guitar strums between (c) and (e) to realize a meter more closely aligned with compound-triple meter. One such example is a live performance of "With God on Our Side" on the BBC network in 1964, the video clip of which is included as Example 4, with numbers appearing as annotating to indicate hyperbeats. Aside from one instance of compound-quadruple meter (the first hypermeasure of the clip) Dylan typically omits the material between (d) and (e) to remove the third hyperbeat of a potentially four-hyperbeat structure. By contrast to the BBC performance, the first half of the studio recording most often manifests a compound-quadruple realization – aligning with the V-V' and W'-W' projections from Figure 11. For a listener familiar with both the compound-

[13] The V-V' projections continue to be realized beyond the realization of the W projection. Following Hasty 1997, the projection arrows have not been included but are understood to be implied by the eventual realization of W'.
[14] The pattern of beginnings (|) and continuations (\) inform a reading of larger-scale meter related to but distinct from the hypermeter of a metric-grid-based transcription. For an in-depth discussion of process-based hypermeter see Hasty 1997, 174-182.

triple and compound-quadruple realizations, the projective meter transcription brings out the tension between these performance options by illustrating each as a potential, spur-of-the moment metric realization. This tension is a feature of the projective meter transcription of the introduction that is not possible to represent in a single illustration based on a metric hierarchy.

[38] Some evidence that Dylan would decide in the moment between two meters can be found in his 1964 performance with Joan Baez at the Philharmonic Hall in New York (from Vol. 6 of the Bootleg series) in which Dylan switches unpredictably between compound-triple and compound-quadruple meter. It seems clear that the switches are not pre-planned because Baez is often late in singing the anacrustic material that precedes the A4 of each phrase, re-joining Dylan at the next lyrical stress. The audio clip in Example 5 demonstrates one such instance in the song's second verse, when Dylan opts for compound-triple meter for the bars containing the lyrics "The Indians died" (at 0:22 of the clip) resulting in his beginning the next unit (which starts with "But the country was young") before Baez is ready. His rushing into the next phrase forces her to re-orient to the new meter, and she comes back in at the next lyrical stress.

[39] We can also read a passage of compound-triple meter as a metric realization that allows Dylan to deliver the narrative more urgently.[15] The studio recording settles into a compound-quadruple hypermeter just after the introductory passage examined earlier. Example 6 provides a passage (0:16-0:31) with a clear quadruple grouping of hyperbeats, which aligns the words "less," "come," and the second syllable of "Midwest" with hyperdownbeats. In later strophes, beginning around the 3-minute mark, Dylan begins rushing the delivery to realize the compound-triple hypermeter. One such passage (3:25-3:45) includes the particularly graphic passage of the lyrics describing the events of World War II. In Example 7, despite some embellishments in surface accompaniment rhythms, we can hear hyperdownbeats in this triple meter aligning with the first syllable of the word "millions" followed by the words "fried," "too," and "side." This comparatively rushed delivery continues as Dylan realizes compound-triple hypermeter with more regularity than the compound-quadruple of the opening, paralleling a shift in

[15] Even if we perceive this urgency as Dylan's desire to get the performance finished more quickly, as one might glean from the Dylan's stiff and serious demeanor in the BBC video recording, the effect of this metric realization can influence our interpretation of the lyrics.

with more regularity than the compound-quadruple of the opening, paralleling a shift in the lyrics to topics that get closer to politics in the 1960s, such as the threat of chemical weaponry and the increasing American involvement in the Vietnam War. The compound-triple realization allows Dylan to declaim the lyrics faster, expressing the temporal relevancy of the subject matter for his narrator – an educated, politically active young man in the mid-1960s – which would resonate with his audiences at the time of the album's release. Shifting between meters is one way for Dylan to express this lyrical meaning in performance.

[40] The changing meter within the studio recording of "With God on Our Side" encourages a flexible approach to hearing meter in this song. Whereas other recordings, like the BBC clip, manifest a single hypermeter throughout, performances that feature frequent changes defy a fixed representation of the song's meter in transcription, despite the tendency for scholars to classify the song as being in a single meter throughout.[16] To simplify the meter in transcription minimizes the experience of listening for meter in Dylan's flexibly timed performances and how potential metric realizations can encourage a particular reading of the lyrics.

Conclusion: Metric Malleability and the Singer-Songwriter Style

[41] The metric flexibility demonstrated in "With God on Our Side" is due in large part to Dylan's early status as a solo performer, allowing freedom of spontaneous self-expression through variations in timing and metric realization.[17] This flexible meter-text relationship is a characteristic feature of the singer-songwriter style of this period. Though its individual musicians differed in style, the solo acoustic performance tradition of the 1960s and 70s singer-songwriters gave the impression of unmediated intimacy with their listeners (Moore 2001, 199) and created a musical context in which meaning could be conveyed to audiences. Whether seemingly improvised, as is the impression of many irregularities in Dylan's meter, or carefully calculated in rehearsal, meter and

[16] Harvey (2001) classifies eleven different performance of the song as all being in a 3/4 meter, and does not specify whether this is a metric or hypermetric reading.
[17] There are many studies investigating metric irregularities in ensemble-based popular music (Everett 2009; Neal 2000; Rockwell 2011; Biamonte 2014, to name a few), but such occurrences would likely involve some advance planning, either through rehearsal or instinctual ability to predict a performer's behavior.

timing are essential factors – alongside harmony, form, and instrumentation – that these artists use to express lyrical meaning in their performances.

[42] This study has highlighted some of the way in which existing transcriptions oversimplify meter in singer-songwriter sheet music and scores and proposed several alternative transcription strategies, informed by research in metric theory, that offer more nuanced accounts of the metric phenomena experienced when analyzing specific performances of these songs. In the act of transcription, then, it is the analyst's job to choose the theoretical approach (or approaches) that best illuminate(s) how poetic and musical meter express the meaning of the lyrics in a particular analysis.

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