Techniques of Hypermetric Manipulation in Canadian Blues[1]

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Abstract: This paper investigates techniques used by some Canadian blues artists to alter phrasing in the twelve-bar blues paradigm. Drawing on recent theories of meter and hypermeter, it presents an analytic methodology that allows us to describe and illustrate such alterations in terms commonly employed for those theories. The paper shows that various techniques resulting in compression and expansion of the paradigm at different metric levels are effective tools for the modern Canadian blues artist.

Much has been written in recent decades about the nature and validity of hypermeter—what the term means, how it is created, or even whether it actually exists. The purpose of the present work is not to delve into this particular debate, but first to summarize some recent views on the nature of meter and hypermeter. Taking these views as a starting point, I suggest that for the purpose of this study, acceptance of the concept of hypermeter is an essential and viable tool for phrase analysis. I apply the concept to the twelve-bar blues, and present a simple analytic methodology. Finally, I present analyses of selected Canadian blues and blues-based songs to illustrate techniques of disruption in the established hypermetric paradigm. I illustrate that, in blues-based styles at least the concept of perceptible hypermeter and the methodology it spawns are valid and applicable to a certain level of musical structure.

Various studies on rhythm and meter can be placed into two categories based on their authors' essential views of metric function. I refer to those in the first category as the *Accent* group. These authors assert that meter is created by accentual phenomena as a piece of music unfolds. The second category I call the *Abstraction* group. For these authors, meter exists as an *a priori* factor—divisions in time over which musical events occur, and with which accents do or do not align. These two views seem to foster an "East is East and West is West" dichotomy. I do not intend to provide a forum where "the twain shall meet" here. However, to fully understand the categories, we must first summarize the ideas of their various proponents.

Meter as the Product of Accent

[1] *This study stems in part from a paper read for the Canadian University Music Society* (CUMS) at the Toronto 2000 Musical Intersections conference. My thanks go to William Echard of Carleton University for his comments and suggestions on the topic during his response to that paper.

According to Wallace Berry in ***Structural Functions in Music***, meter fluctuates. "True metric structure is neither necessarily regular nor necessarily coincident with notated bar-lines at the mensural level. A great deal of interesting and expressive music is of *irregular accentuation*, of irregular metric grouping" (Berry 1987: 318-319). For him, grouping creates meter. "One of the phenomena by which events are grouped is that of accent—relative impulse superiority, in relation to which surrounding impulses at various levels can be seen as "*reactive*," "*anticipative*" (anacrustic), and "*conclusive*." **Meter is thus an aspect of grouping, or partitioning, which is in turn a vital aspect of rhythm**" (Berry, 320; accentuation in bold is mine). In short, meter is created by the moment-to-moment passage and occurrence of musical events.

Kramer asserts more emphatically in ***The Time of Music*** that considering meter as an "abstract temporal grid" or a "static frame of reference" is too limited; rather, meter can be "supple and artistic" (Kramer 1988: 82). Citing other authors, he agrees that there is an infinite number of timepoints in a timespan. Meter then "singles out certain timepoints from the infinite succession and marks them for musical significance," creating a "patterned succession of accented timepoints" (Kramer, 83). Also, a phrase is not a large-scale measure, but a rhythmic group (Kramer, 83). The differences are: 1) a large measure is cyclic (1234 1234 etc) while a rhythmic group is not; 2) a large measure necessarily begins with its strongest accent; a rhythmic group does not (although it may).

> Thus, for Kramer, distribution of accents is crucial to the perception of meter. Musical events cause accents, and the recurrence of accents at specific timepoints creates meter. He identifies three types of accent.
>
> 1) Stress accent: performance/notational conventions, e.g. dynamics
> 2) Rhythmic accent: a point of stability (e.g. a cadence; probably also agogic)
> 3) Metric accent: a point of initiation

His third category is a statement of a simple musical reality: accents often coincide with the notated beat. Where the accents coincide regularly with the notated downbeat, he draws the analogy of measure = beat. At this point, hypermetric structures obtain.

Meter as a Pre-existent Framework

In ***A Generative Theory of Tonal Music***, Lerdahl and Jackendoff assert that there are "...typically at least five or six metrical levels in a piece. The notated meter is usually a metrical level intermediate between the smallest and largest levels..."

(Lerdahl and Jackendoff 1983: 20-21). Listeners perceive intermediate levels moving at a moderate rate, and these are most important perceptually—what we call the beat for example. "At large levels, the patterns of phenomenal accentuation tend to become less distinctive" (Lerdahl and Jackendoff, 21). Then, "at very large levels, metrical structure is heard in the context of grouping structure, which is rarely regular at such levels." (Lerdahl and Jackendoff, 21). Metrical analysis of a whole piece, then, becomes "perceptually irrelevant," except for shorter works.

The authors make an important distinction between grouping and meter: "Groups do not receive metrical accent and beats do not possess any inherent grouping." For them, grouping structures and metrical structures must be kept separate. If grouping boundaries line up with metrical events, then the music is "in phase." If these elements are not synchronized—if, for example, a piece or group begins with an upbeat—then they are "out of phase" (Lerdahl and Jackendoff, 30). Since groups are created and defined at least in part by accents, Lerdahl and Jackendoff clearly do not feel that meter derives from accent. Rather, meter provides the context within which musical events occur, and these events either confirm or contradict the meter.

William Benjamin similarly suggests in "**A Theory of Musical Meter**" that accentuation and meter are related, but that the latter is a framework for the former. This is because we tend to think of meter as time**spans** delineated by equally-spaced (or at least regularly-recurring) time**points**, and that an accentual hierarchy necessarily exists. He asserts that "accentuation is theoretically allied to meter in that both are **organizations of time-points, not events**" (Benjamin 1984: 368; emphasis in bold is my own). Moreover, he suggests that meter has three principal functions: 1) "...to substantiate a way of measuring time..." 2) "...its role in the perception of group structure;" and 3) "..it must be considered multileveled...the organization of an underlying continuum of time-points into equivalence classes by means of periodic partitioning of the continuum on several levels" (Benjamin, 372-375). One particularly important concept he points out is that changes of harmony cause listeners to perceive accent (Benjamin, 379). This idea is important to the notion of hypermeter in blues music, because the harmonic changes in that genre are predictable and standardized.

"Meter," says Benjamin, "is regular by definition" (Benjamin, 390). He further asserts that it is flexible to allow for "...variation in the lengths of time-spans on a metric level" (Benjamin 1984, 390). In an analysis of the first twenty-four measures of Mozart's *String Quartet in E-flat Major*, K. 428, he illustrates that the melodic groups are normatively arranged in four-measure units. He points out in the passage one rogue five-measure unit that seems to negate the regular timespan partitioning set up by the groups of four. However, the fifth measure of the phrase overlaps the first of the next group of four, creating an instance of elision. Despite the apparent disruption by the irregular length unit, "it makes sense to think of the structure as metric because it relies on a metric way of thinking; because, in effect it is a transformation of a (strictly) metric structure" (Benjamin, 392).

Essential to the current study is Benjamin's statement that "the idea of a normative span (of time) in which to get things done relies on awareness of the stylistic context as a whole" (Benjamin, 392). This notion is crucial to understanding hypermetric manipulation in blues-based works. If one is conscious of and sensitive to a specific musical paradigm, then one is also sensitive to events that disrupt the paradigm.

Benjamin cautions that meter is not necessarily multileveled. Although he does not say that it is not or can not be so, he does say that in some simpler musical styles or contexts, it is not necessarily so. Also here, he refers to "the sorts of things we are prepared to regard as substantiating meter" (Benjamin, 399). Presumably he means the actual sound events that occur in a piece of music, the *material bases* for meter. If the meter is stable, he says, then the material bases can vary greatly, even disappear (Benjamin, 399). This seems to suggest meter as an *a priori* fact in music. However, he goes on to say that "*where meter is no longer stable in an objective sense* ... the bases for it must be consistently strong and must themselves be stable to an appreciable extent" (Benjamin, 399-400; italics are my own). In other words, when the notated meter is not confirmed by surface events (accents) and grouping structures, then these latter components themselves must be sufficiently strong to suggest their own meter. Again, we have the idea that accentuation in music can contribute to the perception or creation of meter.

Finally, Benjamin addresses the relationship of meter to longer phrase patterns and normative grouping.

> It should not be supposed that deeper metric structure ... is simply the perception of large groups. The crucial question is: *do groups at a broad level have normative, hence expected lengths?* If they do not, they are what they are in terms of content and nothing more. If they do, the metric spans corresponding to these lengths become structural entities in their own right; distinct that is, from the event structures with which they are filled (Benjamin, 408; emphasis in italics is my own).

He distinguishes between **essential** and **transformed** broad-level structures, the former being, for example, twelve actual measures of material, the latter being eight transformed by some process into twelve. We shall see in the analyses of blues music that acceptance of the idea of such structures—normative, essential and transformed—is not only relevant, but necessary.

Joel Lester suggests the following definition in ***The Rhythms of Tonal Music***. "Meter is ... an organization of pulses that are of functionally equivalent duration. For a meter, and, by extension, a hypermeter, to exist, there must be a stream of pulses to be organized" (Lester 1986: 158). "Hypermeter, if it is to be analogous to meter, must concern itself with groupings of equivalent pulses, not with the pairing of structural events—a related, but clearly separate phenomenon" (Lester, 159). He suggests grouping pulses primarily by harmonic change, and that durational or textural accents project these groupings. Pattern lengths help define the

lengths of metric units, but not the locations of accents within the units. He agrees that at the beat level, or primary metric level (one- or two-measure units) metric ambiguity is rare. On the other hand, ambiguity is common at higher hypermetric levels. "For any given passage, there is a level above which a hypermeter is not definitively established" (Lester, 161). The metric uncertainty comes about because the primary factors that cause meter are absent at those levels, or because primary meter-creating criteria do not support a regular structure.

Lester asserts that above the four-measure level, "the disagreements seem irreconcilable" (Lester, 162). He is referring to the lack of agreement among theorists about how far metric and hypermetric structures can extend. This is "...not to say that we do not recognize the large-scale regularity ... but rather to suggest that we may perceive [it] as something other than meter in the sense that we mean meter at the measure level" (Lester, 168).

William Rothstein suggests from the outset of ***Phrase Rhythm in Tonal Music*** that there can be a direct analog between hypermeasure and *regular beat structure* on a 1:1 ratio. Each measure of a phrase is directly analogous to one beat of 4/4. Each four-bar phrase is by extension analogous to a single beat at the next deeper level, so that a typical sixteen-measure phrase (assuming corroborating harmonic/melodic closure) is metric at the surface level (defined by bar lines), at the measure level, and at the phrase level. Though Rothstein favours a rhythmic-notational reductive approach, his ideas can be represented by the following simple schematic (based on a simple triple meter):

phrase level:	1				2				3				4			
measure level:	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	
	4															
beat level:	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
	123															

Rothstein suggests that "...large hypermeasures may contain smaller ones, while the smaller hypermeasures naturally contain single measures, the single measures contain individual beats, and so forth. Thus meter in tonal music is *hierarchical* in *nature*" (*Rothstein 1989: 10*).

Rothstein asserts that musical rhythm is spawned by the mating of hypermeter and phrase structure, both of which are hierarchical. His definitions and distinctions are as follows:

> Hypermeter refers to the combination of measures on a metrical basis ... including both the recurrence of equal-sized measure groups and a definite pattern of alternation between strong and

> weak measures. Phrase structure refers to the coherence of musical passages on the basis of their total musical content—melodic, harmonic, and rhythmic. Hypermeter and phrase structure may coincide, or they my not; their agreement or conflict represents a basic compositional resource (Rothstein, 12-13).

In ***Meter as Rhythm***, Christopher Hasty suggests the same differentiations as Kramer: 1) rhythm is a "variegated pattern" and meter is "periodic repetition;" 2) there is a difference between rhythmic and metric accent (Hasty 1997: 20). Moreover, meter is hierarchical accentuation (Hasty 1997: 19). Like the authors discussed above, Hasty is concerned with *length* relative to *perception*. At some level, we lose the "beats" of hypermeasures because the timespans between them are too long, and the surface events demanding our immediate attention leave us with too much information to process. For Hasty, then, hypermeter as direct analog to regular meter does not exist. He does concede, though, that some musical styles exhibit a regularity of structure over spans of two, four, eight, and sixteen measures that are "metrical or, at least, meter-like" (Hasty 1997, 181).

These various authors' views afford no universal acquiescence on the way in which meter functions at various levels. Nor do they provide agreement on how or to what extent meter interacts with phrasing or grouping elements in a piece. However, three concepts are prevalent among the authors. First, meter at any level functions independently of grouping processes, interacting with these latter to create conformity or conflict. Second, meter is hierarchic-cyclic accentuation based on alternation of relatively stronger and weaker impulses. Third, many of the authors seem to agree that listeners perceive regularity of phrasing as a recurrent, cyclic phenomenon that can consequently be disrupted. It is the cyclic aspect of both meter and phrasing that leads us to the idea of a four-bar phrase as at least analog of a four-beat pattern. If we accept the idea that hypermeter is a perceptible musical element—whether in the sense of real or analogous beats—then we can analyze the phrasing and harmonic patterns of music using the terminology of meter—beat, pulse, timepoint, etc. We will be able to represent strong-weak relationships or stresses of beats, bars, variable-length phrases (four, eight, sixteen measures) and even whole sections. We can illustrate musical flow, the dramatic conflicts and resolutions of a composition in terms of strong and weak analogous to simple metric concepts. Without the analog, we would be forced to rely on other methods of description, particularly ideas of grouping, rhythm, and accent. Yet these too are merely analogies with which we could describe the constant flux of a piece as it flows through time. Consequently, for our purposes hypermeter is deemed to exist as a perceptible phenomenon in which measures and phrases are analogous to beats—all three delineate normatively regular timespans from the onset of one to the onset of the next . It is the manipulation of these normative spans that is of most concern in this study.

Terminology

Before beginning the analyses, I will clarify some terminology. When referring to formal divisions of songs, I employ common terms from the popular music field. The terms and their definitions are given in Figure 1. These meanings are widely accepted, and their use will facilitate the discussion of examples and figures later in the study.

Figure 1: Common popular music terminology for song sections

Intro	Introductory measures, often containing the song's principal hook and/or harmonic/phrase-structural patterns.
Hook	A musical idea that may and often does frequently recur in a pop song (in any, all or several formal sections). It most commonly has a distinct melodic and rhythmic character, and frequently gives a song its wide popular appeal.
Verse	Principal text portions that change as the song progresses. Abbreviated *V1*, *V2* etc.
Chorus	Recurrent text refrain, often but not always employing a different melody and harmonic progression than found in the verses. Abbreviated *CH*, it sometimes undergoes simple variation techniques (such as expansion by repetition) and minor text alterations.
Change	The portion of a song that is different from pre-established verse and chorus in the use of text, melody and especially harmony. The Change usually occurs only once or twice, and is abbreviated *Chg*.
Solo	*Non-texted (normatively) portion of the song in which one or more* instruments receives a prominent lead role in the texture. There are typically one or two solos in a standard pop song.
Link	Short instrumental passage, sometimes with vocalization, linking two principal formal sections of a song. For example, a chorus is often followed by a two-four measure instrumental passage that connects it to the next verse. A link often is comprised of material from the intro.
Outro	Instrumental passage following the final texted section of a song. Use of the hook or established harmonic pattern from verse or chorus is common here. If the song does not fade out, the outro usually leads to a final cadential arrival.

A study of this nature also requires familiarity with terminology normally linked to the classical repertory of the common practice period. In most cases, the usage of such terms will be clear from the context of the discussion. However, when referring to phrase lengths in relation to meter, I find it convenient to use the simple definitions provided in Figure 2.

Figure 2: Terminology for beat/hyperbeat levels and phrasing

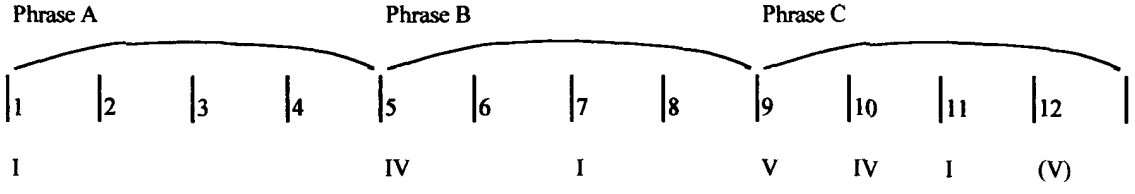
Beat levels: *notated* = beat within a bar at regular tempo
1st hypermetric level: 1 measure = 1 beat[2]
2nd hypermetric level: 2 measures = 1 beat

Phrase = 4 bars (4 1st-level hyperbeats)
Double phrase = 8 bars (4 + 4 1st-level hyperbeats)
Compound phrase = 12 bars (4 + 4 + 4 1st-level hyperbeats)

Analysis of the Paradigm

I begin with an investigation of hypermetric partitioning in a standard 12-bar blues paradigm. Figure 3 illustrates the different levels of meter in the pattern. On the surface, the twelve measures make up a compound phrase that divides simply into three simple four-bar phrases, labelled A, B and C in order of succession (Figure 3a). Phrase A

Figure 3a: Phrasing/harmonic structure in the twelve-bar blues



is characterized by the prolongation of a tonic chord with no harmonic change. Phrase B contains a simple IV-I plagal neighbour which, despite the change of harmony, typifies a traditional tonic-prolongational paradigm. The third phrase, C, is no more harmonically complex than B, but it is perhaps problematic in terms of the interpretation of its harmonies. The hallmark of this portion of the Blues progression is the common use of IV after V. Most listeners interpret the V here as structural, requiring resolution to I. The subdominant harmony is consequently heard as a plagal insertion between V and I—a neighbour or appoggiatura chord with consonant bass support. Thus, the arrival of V in the final phrase brings with it the expectation of resolution to I, and that resolution is normatively achieved through the IV harmony.

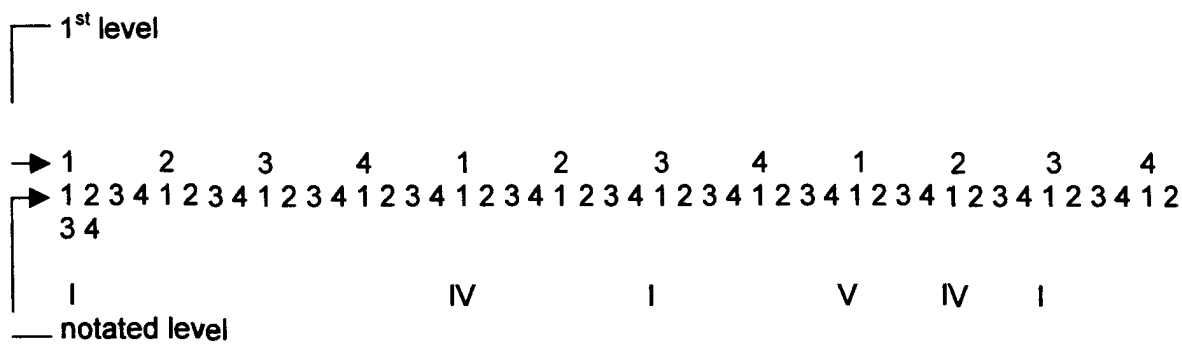
If a blues song remains on the tonic achieved in measure three of phrase C, most listeners naturally perceive that chord to be the completion of the paradigm, and wait through the recessive accentual dynamic that is the final measure of repeated tonic harmony for the next phrase to begin. However, Figure 3a has in parentheses a typical blues option—that of returning to V in the final measure of the third phrase. While some accentual impetus necessarily accrues to the attack of this dominant chord, the harmony is non-structural, and in no way disrupts the phrasing or hypermetric partitioning of the Blues. I suggest that, paradigmatically, we still hear

[2] I reiterate that by the symbol "=" I mean "is analogous to."

the tonic in the penultimate measure as the completion of the harmonic pattern, and that the non-structural V inserted at the end fulfils three functions. It prolongs the final tonic with a root-supported neighbour motion; it emphasizes the upbeat nature of that final measure to provide anacrustic initiative for the downbeat tonic that commences the next phrase; and it provides similar impetus for us to hear a foreground-level cadential iteration at the end of a composition.[3] I turn now to an investigation of the general hypermetric properties of the three phrases.

First, there is nothing irregular about the phrase units themselves. We hear and can count clearly the metric patterns at various levels—within the measure (notated beat) and at the measure level (1st-level); these levels are the most clearly articulated. The counting of these two levels is represented by the simple graphic provided in Figure 3b. The lack of harmonic change in measures two-four suggests a recessive dynamic after the initial tonic attack.

Figure 3b: Notated beat and 1st-level counting in the 12-bar blues (simple quadruple meter)



A first-level hypermetric downbeat at the beginning of phrase B is marked by the change of harmony to IV. The return to I in this phrase imparts a relatively strong impulse at that point in the hypermeasure, though not as strong as the impulse created by the change to IV. Greater accentual impetus accrues to the contrasting harmony, IV, as a source of tension and harmonic conflict. The return to the tonic represents resolution, relaxation of the dynamic created by the preceding harmonic change. In Phrase C, the attack of the structural V in the first measure creates a strong accent; the resolution to I is strong, but again less so than V because of the tension-resolution dynamic.[4] The interpolated IV is heard as weaker than either V or I in this phrase because of its obvious secondary role as embellishing I. We can thus group the phrases as indicated by the phrase markings in Figure 3c.

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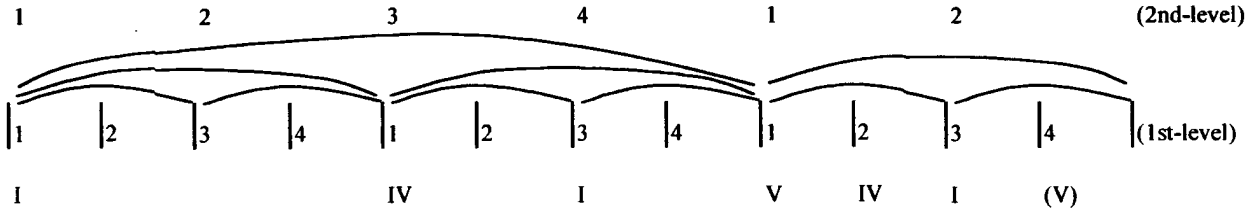
[3] This last function is perhaps most important in terms of creating a closed ending to a Blues song. Rather than fade out, as songs without the V here often do, the optional dominant allows for a strong authentic cadence sound from the final measure (weak 1st-level beat 4) of Phrase C to the subsequent accentually-superior tonic (strong 1st-level beat 1).

[4] The reader may attempt to deduce a strong connection here with the ideas of Berry *et. al.* concerning the recessive dynamic of a cadence. This study neither accepts nor rejects that view, and does not therefore intend to prove or disprove it. In fact, I do not even suggest that this final phrase in the paradigm presents a cadence, or is cadential in any sense.

Figure 3c: Hypermeter in the 12-bar Blues (Asymmetrical at the 2nd level)

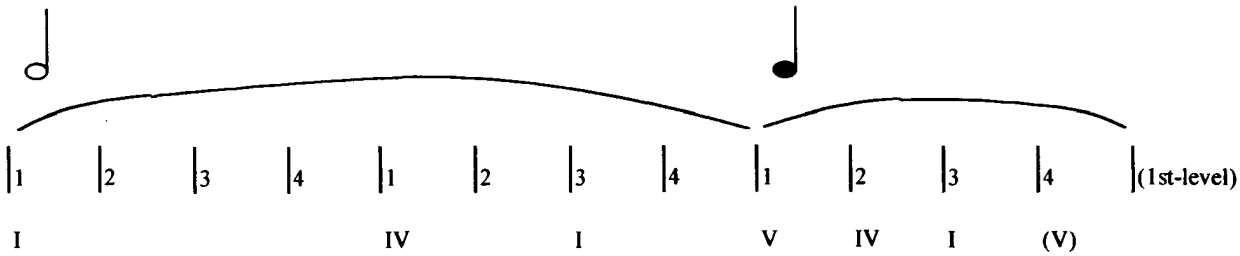


While this division of the complete pattern into three first-level hypermeasures is audible and plausible, we should also consider higher levels of meter. If our definition of meter includes the requirement of a regularly recurring strongest pulse, then we find a problem with grouping at the second hypermetric level. The first eight measures of the paradigm make a double phrase that prolongs the tonic with non-dominant techniques. We can count the initial tonic of the double-phrase as "1" and group the notated measures by twos to get the second-level hypermeter. This grouping creates the count shown in Fig. 3c. The second-level hypermeasure has a strong initial impulse, followed by weak repetition of the I harmony. The change to a neighbouring IV creates a relatively strong impulse but, because of the prolongational function of the subdominant, the accent is heard as weaker than the initial impulse. The return to I at the end of the double phrase creates a relatively *weak accent for the same reasons given in the discussion of 1st-level hypermeter.* The ensuing simple phrase is able to stand alone with the structural V-(IV)-I.

The interpretation offered above groups the 2nd-level beats unevenly as 4 + 2, and contradicts any requirement for meter to present a regularly recurring strongest cyclic pulse that delineates equal timespans. If, on the other hand, we take as an *a priori* consideration only the necessity for some *regularity of recurrent timespan partitioning* to articulate a meter, then our conundrum is easily solved. Since familiarity with the blues paradigm allows us to expect that the pattern will repeat many times before its conclusion, we assume that the 4+2 grouping will be continually repeated and reinforced. In other words, the partitioning into unequal timespans at the second hypermetric level will recur regularly throughout a blues song. Rather than suggest a metric interpretation for this high (and highly abstract) level of partitioning, I propose instead a durational or rhythmic interpretation as shown in Figure 4.[5]

[5] The idea of a rhythmic or durational representation is not without metric import, since regular recurrence of the rhythmic pattern in Figure 4 will necessarily be metric at a high level. This presents the notion that hypermeter may also be considered a function of deep-level rhythm. That view is based on a mensural approach analogous to Renaissance concepts of time division and, while potentially fruitful, is not explored in the context of the present study.

Figure 4: Asymmetrical blues phrasing as rhythmic durations



Analysis reveals that the apparently simple 12-bar blues form has a highly structured and complex set of relationships at different metric levels. If A, B and C represent the first, second and third phrases respectively, then A+B will define the duration or length of the double-phrase, and C the duration or length of the single-phrase. As suggested by Figure 3, let us call the duration of the complete paradigm (the whole) "c," the A+B phrases (the larger portion) "b," and phrase C (the smaller portion) "a." Proportionately, we hear the ratio of the individual phrase lengths as A:B:C (4:4:4 = 1:1:1). This ratio is representative of the absolutely regular partitioning at the first hypermetric level and below. If, on the other hand, we focus on the higher levels, we find a more complex relationship. The ratio a:b:c (smaller portion:larger portion:whole), for example, reveals the blues paradigm to be a manifestation of the Arithmetic Mean. This proportion is expressed by the formula $a<b = b<c$. Whether expressed as simple integers based on numbers of phrases (1:2:3), measures (4:8:12), beats (16:32:48) or durations (*e.g.*, at MM=96 in a 4/4 meter, 10:20:30), the *difference* between the smaller and larger portions is equal to the difference between the larger portion and the whole.

If we take a simple geometric proportion, we can express the durational ratio between the larger portion (b) and the whole (a) as 8:12 or 2:3 (=0.666666). That ratio is roughly equivalent to the Golden Section. It is perhaps formally significant that this moment in the paradigm is marked by the arrival of the structural dominant. All indicators—musical and proportional, harmonic and durational—seem to reinforce this attack of V as an important point of division in the blues pattern.

In contrast to paradigmatic Classical theme structures, which typically build two-bar units into four-bar phrases, eight-measure themes and sixteen-measure compound themes, the disposition of ideas and phrases in our paradigm creates the theme type (form) we call twelve-bar blues.[6] The pattern is then supported by the

[6] The ideas expressed here owe their inception to the concept of Classical theme structures as presented by William Caplin in *A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart and Beethoven* (New York: Oxford University Press, 1998).

idiomatic harmonic structure discussed above. Thanks to cultural conditioning, we expect the regular hypermetric partitioning and recurrent harmonic pattern as paradigmatic in the blues. Many tunes from the repertoire adhere to this rigorous formal structure; indeed, it is this aspect of the style that makes improvisation and *live-jamming* possible as popular performance conventions. Thus, when discussing hypermetric irregularity and manipulation in the following analyses, I will be working from the assumption of a perceived and expected underlying regularity.

Methodology: Analysis of a Standard Blues Song

I will now present the methodology for analysis based on the ideas of harmony, phrasing and meter discussed to this point, beginning with a standard blues song illustrating regular hypermetric sectioning. "Goin' to Brownsville" was recorded by Canadian Blues artist Kevin Duke on the album *Rollin' On*.[7] The song employs a common simple variation on the harmonic pattern of blues phrase A—it uses a neighbouring IV in measure two of the paradigm. This variation is illustrated in Figure 5, which superimposes the hypermetric partitioning and harmonic structure of the Blues on the lyrics of verse 1. We notice that common to the Delta blues style is the call and response structure in the repeated first line of the song. This arrangement supports our hearing of the first two phrases in the paradigm as tonic-prolongational with a recessive dynamic after the onset of the first measure, and allows us to group the eight measures as four second-level hyperbeats. When the text and harmony change in the third phrase, the accentual impetus begins a new beat one at the same level. As Figure 5 shows, the regularity of the form and strophic nature of the lyrics make a simple schematic representation possible. We can see clearly the regular timespan partitioning at all levels of meter. The song conforms exactly to the paradigm.[8]

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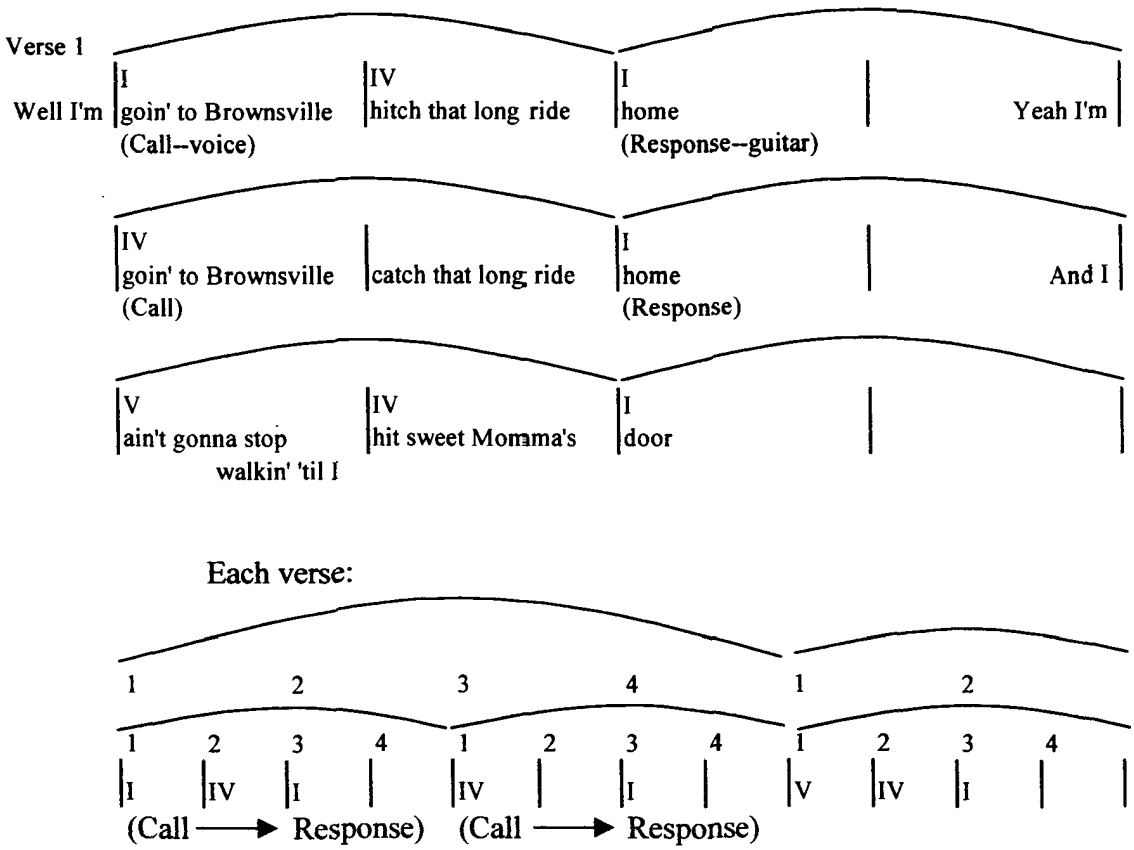
[7] Kevin Duke, *Rollin' On* (Toronto: AVA Music, 1996). This version of "Goin' to Brownsville" is a cover of the original Ry Cooder song.

[8] An interesting element of the call-response style of blues is the use of two-bar units as the essential building blocks of the piece. This notion is also closely allied to Caplin's *Theory of Formal Functions*, and is an avenue of thought that begs further investigation.

Figure 5: Kevin Duke, "Goin' to Brownsville" (Blues in G)



In the Delta Blues tradition, the Kevin Duke version of "Goin' to Brownsville" uses limited instrumental resources—acoustic guitar and voice. This simple texture is more often filled out in modern popular styles by the addition of some combination of drums, electric guitar, bass and keyboards. With this factor in mind, I present one more point of information relevant to the analyses. Figure 6a shows how in pop music, the drums articulate a moderate 4/4 meter. Figure 6b shows a simple triple meter beat pattern in drums.[9] I use these basic beat types to place bar lines in the analyses.[10]

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[9] In Figure 6b, there is an option for the snare to sound on the second beat as well as the third. This is more typical of a Country Music Waltz, however. A simple-duple meter, relatively rare in blues music styles (more common to country and Rockabilly music), is often simply played as one-half of the quadruple meter illustrated in Figure 6a.

[10] These are, of course, greatly simplified beat patterns, and the realization of subdivisions of those patterns will vary from song to song.

Figure 6a: Simple quadruple meter drum pattern in popular music

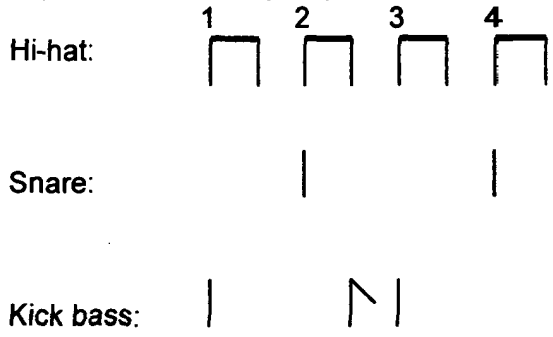
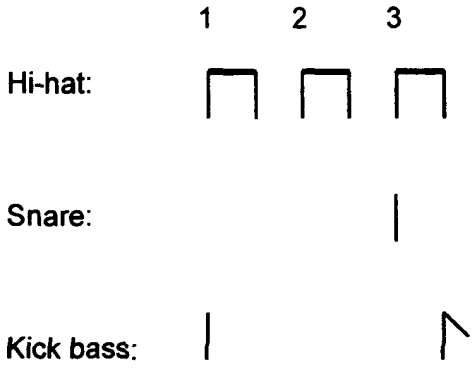
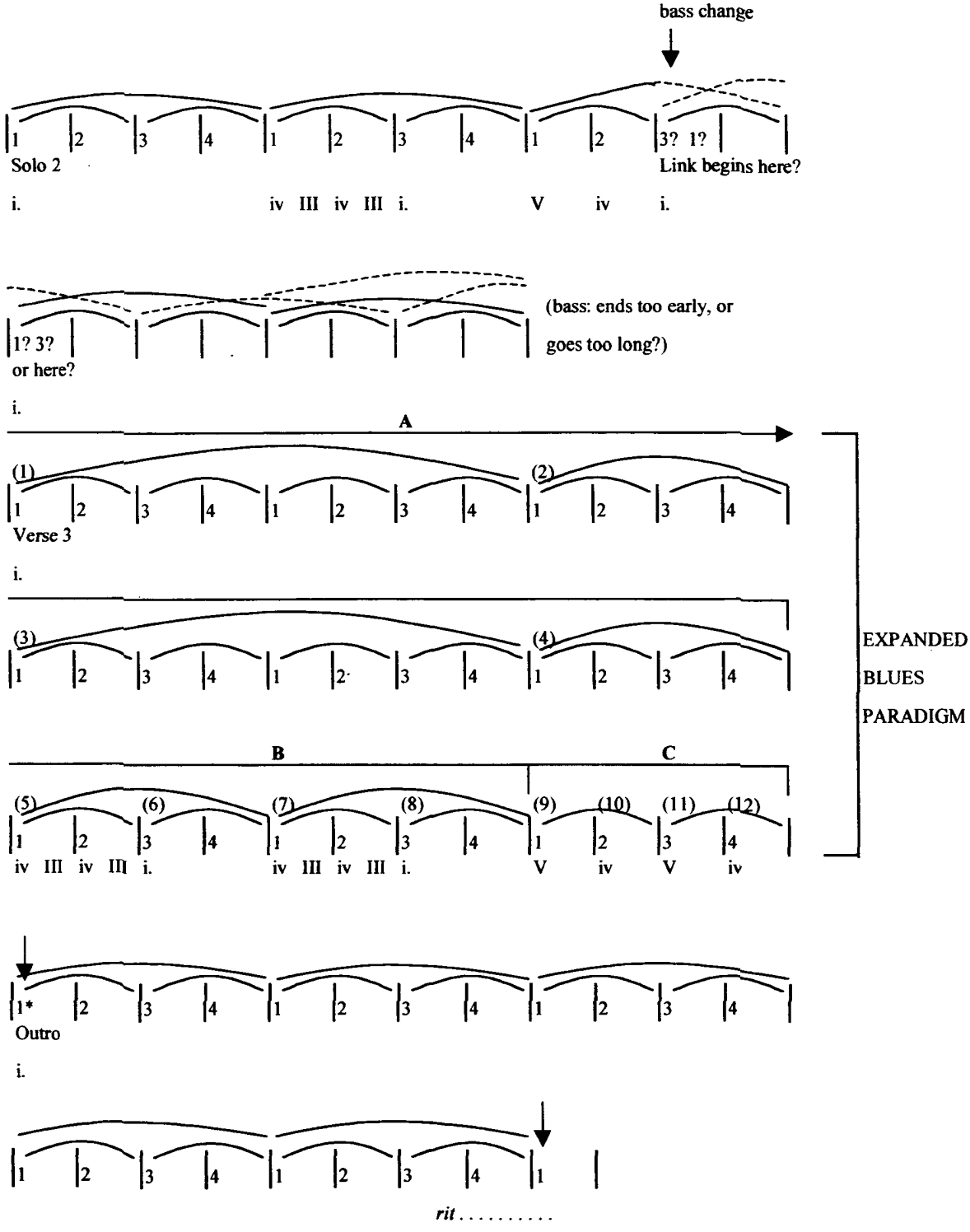


Figure 6b: Simple triple meter drum pattern in popular music



Examples of hypermetric disruption occur in different ways in the Tragically Hip song "New Orleans is Sinkin.'" (From the CD *Up to Here*, 1989. Refer to Figure 7.) This E-minor song follows the blues paradigm until the end of the principal guitar solo, played

Figure 7: "New Orleans is Sinkin'" (Tragically Hip)
(second solo to end)



(* Strong "cadential" tonic arrival to begin the outro.)

over a slight harmonic variant of phrase (b) (neighbouring III harmony to iv). The figure shows that the arpeggiation in the electric bass—doggedly unswerving in the first two verses—suddenly changes in the eleventh bar of the solo. This change imparts a strong accentual impetus to that timepoint, and seems to announce a new first-level hyperbeat "1" where we expect a "3." The conflicting signals are not clarified immediately, because the song then stands neutrally on I during a long link as the listener awaits the entry of the voice with the third verse. If our ears are guided by the bass in this passage, then the voice seems to enter two measures late. The guitar and drums, by contrast, continue on the original metric track. The conflict is finally resolved, as the bass is forced back onto the "right track" with the voice entry. The irregularity in this instance is brought about not by a change in length of the phrases from the paradigm, but by a brief metric *shift* or *shear* in one part. It is as if the bass attempts to establish a new hypermeter, but the other instruments and voice refuse to let it predominate. We feel the conflict between the opposing forces, and we sense a disruption even where one does not, in the end, actually exist.

Verse 3 of the song provides an excellent example of a complex expansion of the blues paradigm from 12 to 36 measures. The text of the verse is provided in Figure 8.[11] The initial 4-bar phrase (A) of unembellished tonic is expanded to 24 (12 + 12, each of which is presented as 8 + 4, a parallel of the original blues phrasing). The second (B) phrase (iv-[III]-i) is repeated for an eight-bar unit. The final four measures present only the V-iv portion of blues phrase C. The two-measure progression is repeated, creating a four-measure phrase that leads to a strong tonic arrival. However, that arrival is no longer heard metrically as the third hyperbeat of the third blues phrase. It is instead a new beat "1" beginning the twenty-bar outro. The gradual shortening of phrase lengths in this verse acts as a hypermetric acceleration analogous to increased harmonic/rhythmic activity leading to a cadence, and contributes to the accentual status of the final tonic. Although

Figure 8. Final verse of "New Orleans is Sinkin.'"

Pale as a lightbulb hanging on a wire	A
Sucking up to someone just to stoke the fire	
Picking out the highlights of the scenery	
Saw a little cloud that looked a little like me	
I got my hands in the river, my feet back up on the bank	
Looked up to the Lord above and said "Hey man, thanks."	
Sometimes I feel so good I gotta scream	
She said Gordie baby I know exactly what you mean	
She said ... she said ... I swear to God she said....	
Naaaaa naaa!	B
Nooooo....yeah!	

[11] The verse text and bracketed A, B, C down the right-hand side of the figure are to be compared with the hypermetric analysis of Figure 7.

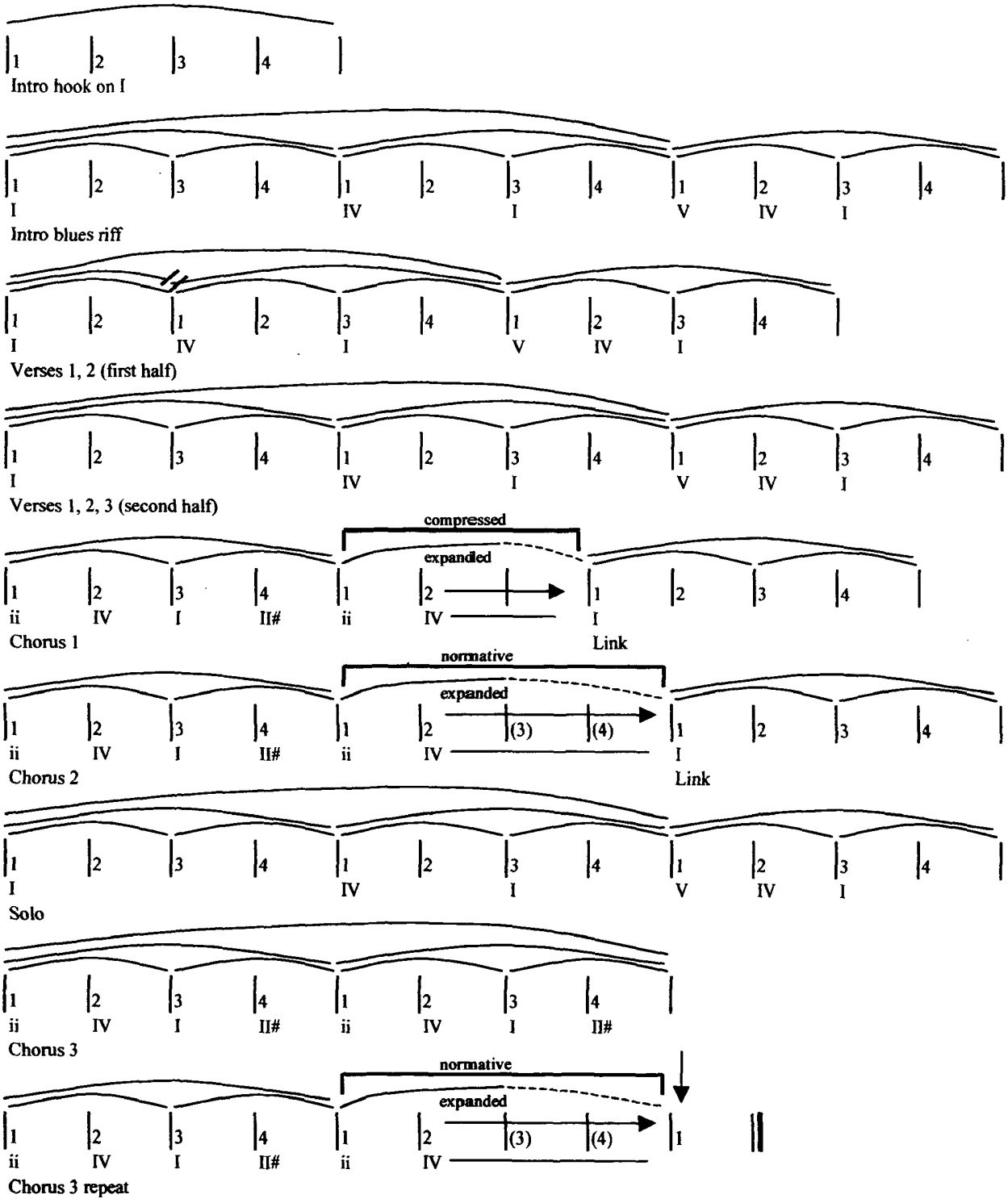
My memory is muddy what's this river that I'm in? ⎤ C
New Orleans is sinkin' man and I don't wanna swim! ⎦

Swim! (Tragically Hip, 1989)

The four-bar phrasing remains rigid throughout the verse, the overall treatment of the pattern at higher hypermetric levels proves highly complex. Phrases A and B are expanded by different factors: A = (4 x 3) x 2; B = 4 x 2. Phrase C undergoes a process of compression by half, then a doubling of that compression to make four: (4/2) x 2. By the end of the verse, the phrase and metric manipulations allow the *Tragically Hip to articulate a strongly accented tonic arrival (I on 1 at all metric levels)* that creates cadential closure and elides with the beginning of the outro.

A more recent piece that employs simpler disruptive techniques, "Since When" is the title cut of a 1998 CD release by Vancouver group 54-40 (Figure 9). The verses and

Figure 9: "Since When" (54-40)



solo of the song are built on a twelve-bar blues. The chorus contains the change. After an initial four-bar statement of the hook, the intro continues with an instrumental twelve-bar blues statement in G. Verses one and two both present two statements of the blues pattern. However, anyone sensitive to the blues will notice immediately in Verse 1 the compression caused by omission of two measures (or two first-level hyperbeats) of phrase A. The omission accommodates the truncated lyrics in the first half of the verse (Figure 10), a fact which the informed blues listener quickly realizes. The second half of the verse re-establishes the paradigm at twelve bars.

Figure 10: Verse 1 from the 54-40 song "Since When"

(Part 1) I am falling, I'm falling, I'm falling away (Phrase A)
From what was you. [Phrase B]
Only thing I said I'd never do. [Phrase C]

(Part 2) I knew something was wrong when you got (Phrase A)
All caught up in what was goin' on and not
Goin' in.
Since when did it matter if the outside world fit in? (54-40, 1998)

The choruses of "Since When" provide a more complex example of manipulation. The harmonic progression in the first four measures of the Chorus 1 is ii-IV-I-II#. The progression begins a second time with new lyrics, and we therefore expect the same length of phrase. However, the IV is expanded to two measures by a pause, and the I arrival coincides with a new beat one as the band restates the four-bar intro hook linking to the blues paradigm and verse two. Thus, the first chorus presents a first-level 4 + 2 grouping structure, but the two are expanded to three by the pause.[12]

The second chorus repeats the first, but this time the pause on IV lasts one extra measure, a further extension apparently designed to fill a normative four measures before the link and solo. A closer hearing of the passage and a consideration of the accentual impetus provided by the keyboards and drums suggests otherwise. At the eighth-note level, the instrumental attacks in the pause are presented in four groups of three, followed by two groups of two (see Figure 11a). We could superimpose the notated simple-quadruple meter bar lines over the rhythmic pattern, and count in 4 as Figure 11b shows. However, this type of counting likely will be counterintuitive to any performer. I believe most would change meter designations and count the option presented in Figure 11c.

[12] A point of interest here is the fact that the *essential* first-level grouping of 4+2 in Chorus 1 is a reflection of the 2nd-level grouping found in the complete blues paradigm.

Figure 11: Counting options in the pause from "Since When"

a) *the groupings:*

b) 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

c) 1 2 1 2 1 2

This interpretation changes the two measures into three, making the phrase unit in the second half of the chorus five irregular measures within a four-measure real-time span. We perceive this metrical conflict, since the feel at the notated beat and first hypermetric levels is one of an extra measure created by shifting time signatures, while the 2nd hyperbeat level maintains its metric integrity. To "fix" the first level we would have to drop the last 2/4 measure, but we would then have a disruption at the second level. I suggest that we get the best of both worlds. Recall the disruption in the first chorus—three bars (expanded from two) where we expected four. In its own way, the second chorus irons out that inequity. In effect the "lost bar" is found here, in the irregular grouping at the surface level. However the music remains within the framework of the overriding 4-beat hypermeter.[13]

This study of selected blues songs by Canadian artists illustrates some of the techniques of hypermetric disruption typical also of Classical musical styles from the Western art music tradition. In particular, I have shown how altered instrumental figuration to create metric shearing, as well as techniques for expansion and compression may be used (sometimes simultaneously) in the blues paradigm to create both simple and complex relationships at different metric levels. In my research, exploration of other more complex techniques and further analysis of more blues songs, as well as popular songs from other genres, reveals increasingly intricate methods of metric manipulation by pop artists.

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[13] The final chorus of "Since When" clarifies for us the four-measure structure we were led to expect in the first instance. Here, the chorus repeats the text "Make it believable, love can be beautiful, make it believable, oh, oh/Lay that old burden down, you've got to turn around and be a believer" (54-40, 1998). The first statement of these lyrics is laid down over a simple 4+4-measure pattern, with the ii-IV-I-II# harmonic support for each. The *repeat* of the chorus at the end has the same harmonic and metric irregularity as Chorus 2, and leads with a *ritard* to the cadential tonic at the end of the song.

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