

An Analysis on the Formal Functions of Metric and Rhythmic Dissonance in *Nonagon Infinity* by King Gizzard & the Lizard Wizard

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The Australian rock band King Gizzard & the Lizard Wizard released their eighth studio album *Nonagon Infinity* on April 29th, 2016. *Nonagon Infinity* is a nine-track concept album that lasts just under 42 minutes in length. The tracks seamlessly transition into each other without separation, including the final track into the beginning track, which creates an endless loop of music that can be played continuously for an infinite amount of time. Ever since I first listened to the album, I have been fascinated by it in many ways; however, I never quite had the time to fully examine the specific reasons for my fascination. I find it to be a joyous listening experience, so in order to understand why I enjoy it so much, I decided to devote this project to analyzing its compositional structure from multiple angles in order to “unveil the curtain” and determine the processes that are involved.

The deeper I got into the procedures of critical listening and analyzing, the more I asked myself about the specific aspects of this work that make it unique. Not only does the overall concept of an endless piece of music give it true identity, but also the ways in which the music succeeds in creating a simultaneous sense of seamlessness and progression, all while coming across as intelligible and accessible. How this is accomplished in *Nonagon Infinity* could certainly have multiple answers, and other analyses may focus on different structural and compositional aspects. I have decided to focus my analysis on the use of metric and rhythmic dissonance as a catalyst for this success. Not only did the use of this dissonance strike me as an important facet of the formal structures involved, but in my personal experience is also

cognitively one of the most gratifying and appealing compositional tools used in this work. I have therefore landed upon the following question that this analysis attempts to answer: How does King Gizzard & the Lizard Wizard employ the dichotomy of metric/rhythmic consonance and dissonance as a formal structure in *Nonagon Infinity*, and what makes such structures effective to the listener?

During the process of analyzing this album, I came across Nicole Biamonte’s article titled “Formal Functions of Metric Dissonance in Rock Music”,¹ published by MTO in 2014. In this article, Biamonte identifies and defines several specific roles that the presence of metric dissonance plays within classic rock music forms. She also makes a clear distinction between rhythmic dissonance; dissonances that “do not disrupt the meter and occur at the tactus level”¹; and metric dissonance; dissonances that “disrupt the bar and the conducting pattern”¹. This is a necessary distinction when discussing this particular musical style, and I as well have incorporated this distinction as a key element to my analysis.

Below is a chart of Biamonte’s categories that explain the different formal functions of each instance of metric dissonance:

SCALE OF METRIC DISSONANCE	FORMAL FUNCTION
small-scale	initiating dissonance cadential hemiola partial-bar link
large-scale	loose verse / tight chorus dissonant bridge dissonant frame

Example 9 from “Formal Functions of Metric Dissonance in Rock Music” (2014) by Nicole Biamonte¹

Biamonte describes metric dissonance as happening on either a small or large scale, performing one of three functions based on the scale. She defines small-scale metric dissonances as ones that “disrupt only a few bars or even a single bar”¹ and “typically function in one of three ways: as an initial ambiguity or irregularity that draws attention to the beginning of a phrase or section,

as a cadential hemiola that creates a sense of accelerating motion toward the end of a phrase, or as a truncated link at the end of a formal section that provides momentum into the following section”¹. She likewise defines large-scale metric dissonances as ones that “frequently emphasize sectional contrasts between verses, choruses, bridges, and framing sections such as introductions and codas”¹, describing their function as either a dissonant bridge, a dissonant frame, or something first defined by David Temperley² as a “loose verse/tight chorus” or LVTC. The last part of the article includes a corpus study of several different anthologies from popular rock bands, spanning from the 1960s until the 2000s, categorizing the use of metric dissonance using these defined formal functions.

I found the article to not only be accurate and fascinating in itself, but also to exhibit some important ties to the use of metric dissonance in *Nonagon Infinity* that potentially helps explain the album’s uniqueness and successes. At first, I planned on using the same analytical process that Biamonte used in her corpus study to analyze and visualize the use of metric dissonance in *Nonagon Infinity*. However, I soon came to realize that such an analytical procedure did not quite translate to this specific work. Despite the fact that I agreed with her definitions and explanations, it ended up being rather difficult to use the same categories that Biamonte defined in the same way she analyzed other rock albums. This did not come as a deterrent, though; in fact, quite the opposite. It instead highlighted a crucial feature to the metric and rhythmic dissonance in *Nonagon Infinity* that now serves as the central point of my argument: *Nonagon Infinity* takes the conventions of metric dissonance to a new scale through careful expansion and thematic development, eventually switching the roles of metric dissonance and consonance in formal function and redefining the feeling of dissonance to the listener. This

switch in feeling what is dissonant and what is consonant serves as a crucial undertone to the album, and is ultimately one of the most aesthetically pleasing parts to its musical composition.

(Note: Appendix I shows a timeline chart of the album's use of rhythmic and metric dissonance throughout each track. The explanations on what the chart specifically shows and how to read it is found in the appendix as well. I will be referencing the chart frequently when discussing my analysis.)

Interestingly enough, the album begins by demonstrating Biamonte's categories of metric dissonance quite clearly. Track 1, "Robot Stop", begins with a metrically dissonant motive in 7/8 (what I call the "infinity" motivic cell; see Appendix II), then resolves at 0:09 to what can be felt as the beginning of a larger section, perhaps a verse, in consonant 4/4 time. (Although I wish to avoid using such nomenclature as "verse" and "chorus" when discussing this work, since I do not believe any section of this piece follows a traditional verse-chorus form, I will refer to them briefly for clarity's sake when comparing musical passages to Biamonte's model.) There are moments at 1:00, 1:48, and 4:28 in track 1 where a metrically dissonant 7/8 motive, motivic cell 1 (see Appendix II), appears within the texture, but it always comes between sections of complete consonance. The middle section of track 1, from about 2:05-4:27, is entirely metrically consonant, enforcing the feeling that motivic cell 1 is acting as a dissonant feature, like a short partial-bar link to the consonant sections. And, although not a pattern of hemiola, the track concludes with the same dissonant motive it began with, acting like a dissonant concluding phrase that corresponds with Biamonte's idea of acting as some sort of cadential/concluding dissonance.

subtle role reversal of passages that are strictly consonant. Unlike track 1 that begins and ends with a metrically dissonant motive, track 4 begins and ends with its native motivic cell 4 re-written as a fully consonant phrase. This comes after a full track, track 3, with hardly any fully consonant passages. One may experience these instances as examples of Biamonte's definitions of initiating and concluding dissonance, playing the traditional role of a metrically dissonant phrase while itself being fully consonant. By tracks 3 and 4, we notice how King Gizzard & the Lizard Wizard are developing the use of dissonance at a metrical level, slowly introducing both types of dissonance and expanding them to play different roles within the form.

Track 5, "Mr. Beat", marks a shift in dissonance type, but not necessarily function. As tracks 1 and 2 provided rather homogenous "green" sections, and tracks 3 and 4 provided homogenous "yellow" sections, track 5 now produces a largely homogenous "blue" section, which is the use of metric dissonance without rhythmic dissonance. The entire track is essentially in a slow 7/8 time, only beginning with a 15-second introductory consonant phrase and ending with the anticipatory introduction of motivic cell 6 that adds rhythmic dissonance. There is one bar of 4/4 that ends each iteration of motivic cell 5, which acts more like a metrically dissonant added beat rather than a consonance. I also feel as though the introductory consonant phrase in this track is a bit jarring in that it stops the established and expected pattern of metrically dissonant musical figures, thus acting how a typical dissonant phrase might act, and the eventual resolution to the 7/8 time at 0:15 feels a bit more conclusive.

At nearly exactly 62% of the way through the album, where the mathematical golden section lies, we get our only instance of silence in the entire work, a brief second of pause in-between tracks 5 and 6, before track 6 "Evil Death Roll" intensely begins with its native motive

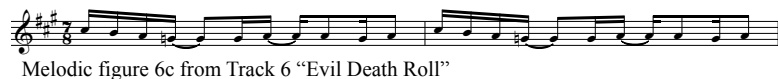
in a faster $7/8$ time. I point to track 6 as containing the important developmental climax of the functionality of metric dissonance in this work. I believe the track's placement within the work as a proportional division between sections is no coincidence, and it draws particular attention to itself as the longest track on the album.

This is also where I must point out the role in which motivic construction and repetition plays in successfully executing the role reversal of dissonance and consonance. At first, there was a variety in motivic construction with regards to their uses of metric and rhythmic dissonance. The album starts with motivic cells 1-4 having four different rhythmic/metric properties. Motivic cell 5 returns to a "blue" motive, similar to motivic cell 1, then motivic cell 6 breaks the pattern by using a "red" motive. Then, from here on out, all other motivic cells are in the "red" category of using both metric and rhythmic dissonance. While the other three categories were featured in the first half of the album through homogeneity in pedal ornamentation and other figuration, the "red" category is slowly developed motivically, its occurrences and repetitions becoming more and more thematically important.

I noted earlier that track 3 marked an important beginning of subtle dissonant/consonant role reversal; this track contains a native "red" motivic cell that goes against the properties of its surrounding environment. So too does track 6, being the only other track on the album so far that not only contains a native "red" motivic cell, but also a motive with metric properties that resist its own environment. These moments of introducing "red" material bring with them important formal implications, that which at first helps define consonance as anything other than "red", and now begins to shift into feeling both metric and rhythmic dissonance together as consonant functions.

The first part of track 6 contains two introductory iterations of motivic cell 6, followed by a section of metric consonance from 0:27-2:20 that includes no significant thematic material, only some melodic figuration. I perceive this section of consonance as playing the traditional role of “dissonant bridge”, not only due to the cognitive conditioning of the listener by this point through the long periods of dissonant usages, but also because the listener is not being replenished with memorable motivic material that has come to be expected. At the return of motivic cell 6 at 2:20, I myself am now fully convinced that this passage feels “right”, “conclusive”, and therefore consonant. This moment also marks the final step of the full role reversal of metric consonance and dissonance being realized.

At this point in the work, no track has included more than two significant unique melodic figurations apart from its native motivic cell. In fact, I find tracks 3, 4, 5 to have only one such melodic figuration. Then, within its aforementioned consonant section, track 6 includes two unique melodic figurations, which supposedly signal that we now have all the melodic material being presented in this track. However, unlike any other track thus far, track 6 includes a third figuration, labeled 6c on the Appendix I chart. A short, neat guitar riff that seemingly comes out of nowhere at 3:10, 6c introduces a “red” passage at a lower thematic level, taking the



simultaneous usage of metric and rhythmic dissonance down to a more “regular” section of the music. Contrasting the melodic figurations 6c with 2a, we see how 2a is used as a traditional dissonant passage according to the Biamonte model, whereas 6c is but an added theme, a blip on the radar, an environmentally innocuous phrase. It separates not only track 6, but the work as a whole, in establishing metric dissonance as the true status quo.

At 3:27, right after figure 6c, comes something perhaps even more wild and unexpected; an iteration of motivic cell 1. In this work, motivic cells are passed along between consecutive tracks quite often, but this the farthest a motivic cell is presented away from its native track. My explanation for this, within the scope of this analysis, is that it is a landmark that fully demonstrates the transformation of metric dissonance into perceived consonance, and vice versa. This phenomenon has been in the works and developed throughout the entire work, but now we officially have an instance of a previously dissonant phrase coming back and being felt as a consonance. It is a warm, welcome arrival point that ties the piece together and signifies how much perceptions can change through careful development.

Then, after motivic cell 7 makes a customary anticipatory entrance at 4:01, the “infinity motive” returns at 4:34 to punctuate the distortion of memory and the new feeling of consonance. What follows is a long jam on motivic cell 6 between 5:00-6:17, similar to how track 3 ends with the “red” native motive getting a lengthy groove, only this time there is no metric consonance around it to make it feel dissonant; it is simply a groove to get lost in. Track 6 ends with echoing the first two melodic figurations from the beginning of the track, which can now be rather accurately described as a dissonant cadential ending, though its properties are in fact metrically consonant.

Tracks 7 and 8, “Invisible Face” and “Wah Wah”, continue on in complete metric dissonance, only going back and forth between rhythmic dissonance and consonance, with the more thematic material being rhythmically dissonant. Biamonte briefly touches on the idea of a song being “metrically dissonant throughout” and adds this as a category to her corpus study analyses. In isolation, tracks 7 and 8 on this album would certainly fall into this category.

However, in context, I would argue that Biamonte's model has now been fully reversed at this point in the album, and to call either of these tracks metrically dissonant for the sake of formal function and description feels inaccurate. While dissonant in musical properties, the label of "dissonant" as a functional descriptor does not altogether apply.

The album's ninth and final track, "Road Train", performs a complete and immediate switch back to conventional metrically dissonant and consonant roles. However, I would argue that it takes a while for the listener to cognitively become aware of this and line themselves back up with these functional roles on an experiential level. I sense that track 9, which is also the only track to contain no native motive or motivic presentation, begins feeling very unstable and therefore dissonant, even though it begins with a rather long, consonant percussive exposition in 4/4 time. As the track begins to introduce a few bars of asymmetrical meter, such as at 1:24, 1:50, and 2:55, one can eventually settle back in to feeling such moments as comparatively dissonant. Similar to track 1, track 9 juxtaposes the "green" and "blue" categories, which by the end the "blue" is back to portraying traditional roles of metric dissonance, providing for a seamless transition back to track 1 on a formal level. While the album slowly and carefully develops its use of metric dissonance over time, it quickly takes it all back through brute force of surprise repetitive consonance in its final track. Thus, we are back at the beginning, and are able to experience the thrill ride through the transformations of metrical dissonance and consonance all over again.

Works Cited

¹ Biamonte, Nicole. "Formal Functions of Metric Dissonance in Rock Music." *Music Theory Online*, vol. 20, no. 2, June 2014, <https://doi.org/10.30535/mto.20.2.1>.

² Temperley, David. "The Melodic-Harmonic 'Divorce' in Rock." *Popular Music*, vol. 26, no. 2, 2007, pp. 323–342., <https://doi.org/10.1017/s0261143007001249>.

Appendix I - Timeline of Rhythmic/Metric and Thematic Properties

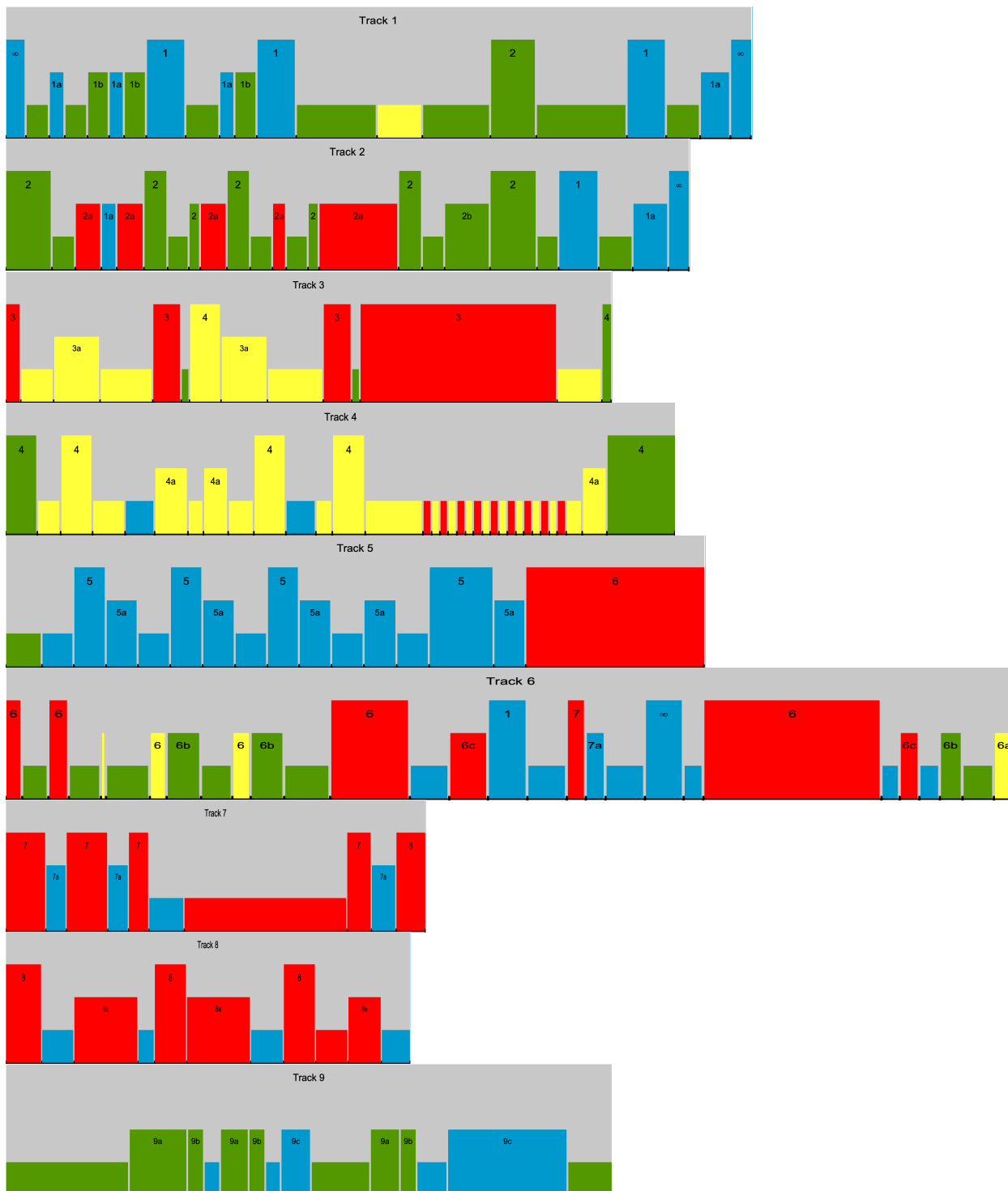
KEY

Rhythmic/Metric Properties

- Green = No metric or rhythmic dissonance
- Yellow = Rhythmic dissonance, no metric dissonance
- Blue = Metric dissonance, no rhythmic dissonance
- Red = Metric and rhythmic dissonance

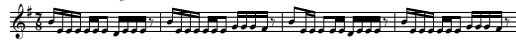
Thematic Properties

- Highest level = Motivic repetition
- Middle level = Melodic figuration
- Lowest level = Pedal ornamentation



Appendix II - Chart of Motivic Cells in *Nonagon Infinity*

Cell ∞ Meter: asymmetric 2+2+3
No rhythmic dissonance



Cell 8 Meter: asymmetric 2+3
2:3 grouping dissonance



Cell 1 Meter: asymmetric 2+2+3
No rhythmic dissonance



Cell 7 Meter: asymmetric 2+2+3
16th note displacement dissonance



Cell 2 Meter: symmetric 2+2+2+2
No rhythmic dissonance



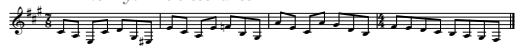
Cell 6 Meter: asymmetric 2+2+3
2:3 grouping dissonance



Cell 3 Meter: asymmetric 3+3+3+2
2:3 grouping dissonance



Cell 5 Meter: asymmetric 2+2+3
No rhythmic dissonance



Cell 4 Meter: symmetric 3+3
2:3 grouping dissonance

