

EXHIBIT 3

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REPORT REGARDING

“LET’S GET IT ON”

AND

“THINKING OUT LOUD”

I. INTRODUCTION AND SUMMARY

1. My faculty rank at New York University is Professor of Music, and my title is Director Emeritus of all studies (B.M. through Ph.D.) in Music and the Performing Arts in New York University’s Steinhardt School. I have written and co-written published books and articles (in peer-reviewed journals) regarding music analysis, methodologies in music research, and other scholarly areas related to music. I sit on editorial boards of peer-reviewed journals. I have provided analyses and opinions in connection with music copyright issues for more than 20 years. My *curriculum vitae* is attached as **Appendix 1**.

2. I have been asked to complete a comparative musicological analysis of the compositions in the U. S. Copyright Office Deposit Copy of “Let’s Get It On” written by Ed Townsend and Marvin Gaye (hereafter “LGIO”) dated July 17, 1973 and “Thinking Out Loud” written by Ed Sheeran and Amy Wadge (hereafter “TOL”). It is my understanding that “Thinking Out Loud” was released in 2014.

3. I was also asked to review and respond to the report of Dr. Alexander Stewart dated December 8, 2017 (hereafter “the Stewart report”).

Materials Used in the Analysis of LGIO and TOL

4. The following materials were used in my analysis of LGIO and TOL set forth below: (1) a copy of the U.S. Copyright Office Deposit Copy of LGIO which is stamped with the date July 17, 1973 and the copyright # EP314589 (attached as **Visual Exhibit A**); (2) an mp3 of TOL I downloaded from iTunes (attached as Track 1 on **Audio Exhibit 1**); (3) published sheet music of TOL I downloaded from musicnotes.com (attached as **Visual Exhibit B**); and (4) published sheet music and/or sound recordings of related music.

Materials Used in the Review and Response to the Stewart Report

5. In addition to materials used in my analysis of LGIO and TOL identified immediately above, I used the following materials in my review and response to the Stewart report: (1) an earlier report written by Dr. Stewart dated June 3, 2015 (hereafter “the June 2015 Stewart report”); (2) a “DRAFT” outline summary of my preliminary analysis of LGIO and TOL that I completed sometime in March 2015; (3) my written response report dated October 6, 2015 which was a response to the June 2015 Stewart report, (4) mp3’s of the single and album versions of “Let’s Get It On” I downloaded from iTunes respectively attached as tracks 2 and 3 on **Audio Exhibit 1**, and (4) published sheet music and/or sound recordings of related music.

Overall Methodology

6. I compared LGIO and TOL by using the following overall methodology: (1) analysis of LGIO and TOL in their entirety, (2) analysis of each of their component elements individually and in combination, (3) analysis of related music, and (4) analysis of LGIO and TOL in their entirety within the context of the analysis of their component parts and related music.

Musical Compositions and Basic Terminology

7. A musical composition is composed of certain distinct and identifiable elements that can be analyzed separately, and in combination. When analyzing two

compositions in order to form an opinion in music copyright infringement claims, some elements are more fundamental to determining similarities or differences than others, namely: (1) structure; (2) harmony; (3) rhythm; and (4) melody, and when present, (5) lyrics.¹ On the other hand, similarities or differences in the key (e.g., if two compositions are in the same key or in different keys), tempo (i.e., how fast or slow), meter (e.g., 4/4 time), instrumentation (e.g., the use of guitars, drums, synthesizers, etc.), and style or genre (e.g., hip hop, country, etc.) are less significant insofar as they represent musical building blocks and/or commonplace practices used in countless musical compositions. Brief definitions of the five enumerated elements listed above follow.

(a) **Structure** is the organization of musical units or musical groups, often dictated by the development of the melody and/or lyrics. The larger portions or sections of *songs* (i.e., works that include the human voice singing a text) are generally referred to as Verses and Choruses. The material within Verses and Choruses consists of phrases.

(b) **Harmony** refers to the tonal relationship of pitches that sound simultaneously, especially (but not exclusively) with respect to the use and organization of “chords.” A “triad” is a basic type of chord that consists of three pitches built on intervals of a third.² (An “interval” names the number of tones or space between two pitches.) A sequence of chords is referred

¹ For example, Ronald S. Rosen writes: “Thus, from the copyright perspective (and in the view of many musical professionals)...the basic elements of music are: melody, harmony, rhythm, and form/structure.” (Ronald S. Rosen, *Music and Copyright*, Oxford University Press, 2008, p. 156) In addition and as cited in Rosen (footnote 19 on page 156): “In *Tisi v. Patrick*, both experts were in agreement “that the elements to be considered on the question of similarity between [the two songs] were structure, melody, harmony and rhythm.” 97 F.Supp.2d 539,543 (S.D.N.Y.2000).”

² See “harmony” in *The Harvard Dictionary of Music* (Fourth Edition, 2003, Harvard University Press p. 379) and *The New Grove Dictionary of Music and Musicians* (Second Edition, 2001, Vol. 10, p. 858).

to as a harmonic progression. Harmonic rhythm is the rate of change of chords.³

(c) **Rhythm** refers to the pattern and organization of the time values of sounds and silences as well as the overall rhythmic flow and feel in musical time.⁴

(d) **Melody** is a single line of music that consists primarily of a succession (i.e., a sequence or order) of pitches and the rhythmic durations of those pitches within a melodic phrase structure. Pitch is the specific high or low placement of a musical sound, often identified within a musical scale.⁵

(e) **Lyrics** are the words (or text) that are sung or spoken in a song.

Summary of Findings

8. On the basis of my musicological analysis, it is my opinion that LGIO and TOL do not share any significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate. Any similarity between these two songs represents expression that was common prior to the copyright of LGIO.

9. The Stewart report fails to present any analysis of the composition in the LGIO Deposit Copy. Instead, the Stewart report analyzes the recorded performances in the “single” and “full” recordings of LGIO (hereafter, “LGIO RP”). The similarities between LGIO RP and TOL proffered in the Stewart report represent elements that were common prior to LGIO RP. Many purported similarities in the Stewart report are too remote to be of any significance, individually or in combination with other similarities. Dr. Stewart’s findings of purported melodic similarities lack any substance and rely on misleading omissions and self-contradictions to create similarities between fragments of

³ See “harmonic rhythm”, *ibid.* (*Harvard*, p. 376), (*Grove*, Vol. 10, 854).

⁴ See “rhythm”, *ibid.* (*Harvard*, p. 723), (*Grove*, Vol. 21, p. 277).

⁵ See “melody”, *ibid.* (*Harvard*, p. 499), (*Grove*, Vol. 16, p. 363).

longer melodies wherein no meaningful melodic similarity exists. My analysis of LGIO and TOL is immediately below followed by my detailed response to the Stewart report.

II. ANALYSIS OF LGIO AND TOL

FORM/STRUCTURE

10. On the basis of my analysis of the structure in LGIO (i.e., the LGIO Deposit Copy) and TOL, I found no significant structural similarities.

11. A structural chart provides a map of the structural sections in a musical composition. The charts of the respective structures in LGIO and TOL presented immediately below include the name of each structural section and the number of bars⁶ in each structural section. Insofar as the musical composition in TOL is embodied in a sound recording performance, the commencement time (within 1 second) of each structural section is also charted. In **Visual Exhibit B**, I hand-wrote bar numbers and structural section names in the LGIO Deposit Copy.

<u>LGIO Deposit Copy: Form</u>		<u>TOL: Form</u>	
Verse 1	16 bars	0:00	Verse 1A & 1B 16 bars (A/B 8 bars each)
Chorus 1	16 bars	0:48	Pre-chorus 1 8 bars
Verse 2	16 bars	1:13	Chorus 1 10 bars
Verse 3	16 bars	1:43	Verse 2A & 2B 16 bars (A/B 8 bars each)
Bridge 1	32 bars	2:32	Pre-chorus 2 8 bars
Verse 4	16 bars	2:56	Chorus 2 10 bars
Chorus 2	16 bars	3:26	Interlude (gtr solo) 8 bars
Bridge 2	8 bars	3:50	Chorus 3 15 bars
Outro	30 bars		

⁶ A “bar” (also termed a “measure”) is a unit of musical time demarcated by vertical lines termed “bar lines.” In 4/4 time or “meter”, a bar consists of four quarter beats.

12. As demonstrated in the chart immediately above, LGIO and TOL incorporate generic structural building blocks in music through the use of Verse and Chorus sections. By way of difference:

- There are two Pre-chorus sections in TOL, but none in LGIO;
- There are two Bridge sections in LGIO, but none in TOL;
- There is an Interlude in TOL, but none in LGIO; and
- There is an Outro (or ending section) in LGIO but none in TOL.

13. In summary, on the basis of my analysis I found that there are no significant structural similarities between the two songs, but there are structural differences.

HARMONY

14. On the basis of my analysis of the harmonies in LGIO and TOL, I found that there are no significant harmonic similarities.

15. LGIO is written in the key of E-flat major. TOL is recorded in the key of D major. In keeping with musicological practices, hereafter in this report I transposed⁷ LGIO to the key of D major to facilitate a comparison with TOL.

16. Musicologists often use Roman numerals to identify chords in musical compositions. The key of D major is based on the D major scale. A chord can be built on each scale degree and identified with a Roman numeral as charted immediately below. For example, in the key of D major:

- A “D major chord” is built on scale degree 1 and identified as a “I” chord;
- An “F-sharp minor chord” is built on scale degree 3 and identified as a “iii” chord⁸;

⁷ “Transposition” is the act of transferring music from one key to another, note for note. The relationship of all the notes to one another remains the same.

⁸ Upper case Roman numerals denote “major” chords and lower case Roman numerals denote “minor” chords.

- A “G major chord” is built on scale degree 4 and identified as a “IV” chord; and
- An “A major chord” is built on scale degree 5 and identified as a “V” chord.

17. Portions of LGIO and TOL use similar chord progressions, namely in the Verses, Choruses, and Outro in LGIO, and the Verses, Interlude and the first 8 bars of the Choruses in TOL. As demonstrated below, there are multiple chord progressions in TOL in these sections, each with similarities and differences from the chords in LGIO.

18. Starting with the harmony in LGIO, the sole chord progression in the Verses, Choruses, and Outro in LGIO is charted in Roman numerals immediately below. This chord progression does not change or vary throughout the Verses, Choruses, and Outro in LGIO.

LGIO: I iii IV V7⁹

19. The basic “I iii IV V” chord progression in LGIO was in common use prior to LGIO’s 1973 copyright. For example, the following twelve songs include this basic chord progression and were released prior to 1973.

- “True Love Ways” (1960) by Buddy Holly
- “Last One to Know” (1961) The Fleetwoods
- “Once Upon a Dream” (1963) by Billy Fury
- “A Summer Song” (1964) by Chad and Jeremy
- “Fun, Fun, Fun” (1964) by The Beach Boys
- “I Go to Pieces” (1965) Peter & Gordon

⁹ A “7” placed after a Roman numeral denotes the addition of a pitch that is the interval of a minor seventh above the “root” or name of the chord. An added “7” to a basic chord has been exceedingly commonplace for centuries in music of multiple genres.

- g. “You Didn’t Have to Be So Nice” (1965) The Lovin’ Spoonful
- h. “Georgy Girl” (1967) The Ventures, and (1967) 101 Strings Orchestra
- i. “Different Drum” (1967) Stone Poneys
- j. “Hurdy Gurdy Man” (1968) Donovan
- k. “I Started a Joke” (1968) The Bee Gees
- l. “Crocodile Rock” (1972) Elton John

20. Moreover, the same basic “I iii IV V” chord progression is found in elementary guitar method books. The elementary method books *First Chord Progressions for Guitar* and *Guitar for Advanced Beginners* feature the same “I iii IV V” chord progression. The book cover, bibliographic page, and the specific pages that feature the “I iii IV V” chord progression are attached respectively in **Visual Exhibits D and E**. In **Visual Exhibit E**, I placed arrows to pinpoint the “I iii IV V7” chord progression. The last page in **Visual Exhibit E** includes the following opinion:

“By the way, even though ‘**Let’s Get It On**’ was recorded in 1973, which is AFTER dozens of other *I-iii-IV-V* songs were recorded, I firmly believe that Marvin Gaye did not plag[i]arize the song—he was simply writing a song using a common progression, just like every other professional songwriter does.” [p. 84, *Guitar for Advance Beginners*, upper case and bold font in the original]

21. Notably, while the twelve songs listed above all predate LGIO and include the same basic “I iii IV V” chord progression *and* the same basic chord progression is featured in two elementary guitar method books, the chord progressions in TOL and LGIO are *not* the same as analyzed and charted below.

22. There are multiple chord progressions in TOL. The TOL published sheet music is attached as **Visual Exhibit C** (in the key of D major and in the key of E-flat major).

23. Charted below is the “I iii IV V7” chord progression in LGIO (in **bold** font to facilitate a comparison) placed over five representative chord progressions in TOL.

LGIO:	I	iii	IV	V7	
TOL #1:	I5	I/3	IV	Vsus2	(in Verse)
TOL #2:	I5	I/3	IV5	V5	(in Verse)
TOL #3:	I	I/3	IV	Vsus4	(in Interlude)
TOL #4:	I	I/3	IV	V	(in Verse, Chorus & Interlude)
TOL #5:	I	I/3	IV	V11	(in Verse, Chorus & Interlude)

24. As illustrated in the chart immediately above,¹⁰ the chord progressions in TOL are not the same as the “I iii IV V7” chord progression in LGIO. Of the five chord progressions in TOL charted immediately above, the two chord progressions in TOL with the least differences as compared with the “I iii IV V7” chord progression in LGIO are #4 and #5 as charted immediately below.

LGIO:	I	iii	IV	V7
TOL #4:	I	I/3	IV	V
TOL #5:	I	I/3	IV	V11

¹⁰ In the chart above, a “5” after a Roman numeral denotes that the “third” of the chord is missing: in this case, only the “root” (i.e., the name of the chord) and the pitch that is a fifth above the root are present. A “/3” after a Roman numeral denotes that the third scale degree is the lowest note of the chord rather than the root of the chord. A “sus2” after a Roman numeral denotes that the “third” of the chord is omitted or “suspended” and replaced with the pitch that is the interval of a 2nd above the root. An “11” after a Roman numeral denotes that the pitch that is the interval of an 11th above the root has been added to the chord.

25. Importantly, even if the chord progression in TOL was the same as LGIO's basic "I iii IV V" chord progression, and it is not, that chord progression in LGIO was in common use *prior to* LGIO and is featured in beginner guitar method books.

26. In addition, the basic "I I/3 IV V" chord progression in TOL (see chord progression #4 charted above) is featured in the Chorus in the classic song "Get Off of My Cloud" by The Rolling Stones released in 1965, eight years before LGIO. In fact, this "I I/3 IV V" chord progression in "Get Off of My Cloud" is more similar to the chord progressions in TOL than between the chord progressions between TOL and LGIO. Thus, (1) the Chorus in "Get Off of My Cloud" includes a chord progression that is more similar to the chord progressions in TOL than between the chord progressions in LGIO and TOL *and* (2) twelve songs that predate LGIO are more similar to the chord progression in LGIO than between the chord progressions in LGIO and TOL.

27. As noted above, the harmonic similarity between LGIO and TOL is found in the Verses, Interlude, and the first 8 bars of the Choruses in TOL. However, the last two bars of the 10-bar Choruses in TOL feature the following chord progression.

	<u>Bar 9</u>	<u>Bar 10</u>
TOL:	vi V IV I/3	ii7 V I

The chord progression in bars 9 and 10 in the Choruses in TOL charted immediately above is substantially *different* from any chord progression in LGIO.

28. In addition, the harmonic rhythm (i.e., the rate of change of the chords) in LGIO and TOL is not the same. In LGIO, the harmonic rhythm in the 4-bar chord progression is two chords in bar 1, one chord in bar 2, two chords in bar 3, and one chord in bar 4. By way of difference, in TOL the harmonic rhythm of the 2-bar (not 4-bar) chord progressions #1 - #5 charted above is generally two chords per bar in which the second and fourth chords anticipate the third beat of their respective bars. Only if one cuts in half the value of the notes and chords in LGIO is the harmonic rhythm between these two chord progressions the same.

29. In summary, on the basis of my analysis, I found that there are no significant harmonic similarities between LGIO and TOL, but there are harmonic differences. The basic “I iii IV V” chord progression was in common use prior to LGIO. There are similarities and differences between the chord progressions in TOL and LGIO. Moreover, when combined with my findings regarding structure (above), I found that there are no significant structural and/or harmonic similarities, individually or in the aggregate, between LGIO and TOL.

RHYTHM

30. On the basis of my analysis of the rhythms in LGIO and TOL, I found that there are no significant rhythmic similarities.

31. LGIO and TOL are in 4/4 meter or “time”, also termed “common time.” Countless musical compositions are in 4/4 meter. “Common time” is a foundational musical building block.

32. The melodic rhythms (i.e., the rhythmic durations of the notes) in the vocal melodies in LGIO and the vocal melodies in TOL are different.

33. In summary, on the basis of my analysis of the rhythms in LGIO and TOL, I found that there are no significant rhythmic similarities but there are rhythmic differences. Moreover, when combined with my findings regarding structure and harmony, I found that there are no significant structural, harmonic, or rhythmic similarities, individually or in the aggregate, between LGIO and TOL.

MELODY

34. On the basis of my analysis of the melodies in LGIO and TOL, I found that there are no significant melodic similarities. As explained in paragraph 7(d) above, “melody” is a single line of music that consists primarily of a succession (i.e., a sequence or order) of pitches and the rhythmic durations of those pitches within a melodic phrase structure. “Pitch” is the specific high or low placement of a musical sound, often identified within a musical scale.

35. The vocal melodies in LGIO and TOL are different. There are no significant similarities.

36. In summary, on the basis of my analysis of the vocal melodies in LGIO and TOL, I found that there are no significant melodic similarities but there are differences. Moreover, when combined with my findings regarding structure, harmony, and rhythm, I found that there are no significant structural, harmonic, rhythmic, or melodic similarities, individually or in the aggregate, between LGIO and TOL.

LYRICS

37. On the basis of my analysis of the lyrics in LGIO and TOL, I found that there are no significant similarities in lyrical expression.

38. The overall lyrics in LGIO are about immediate sexual attraction and fulfillment, while the overall lyrics in TOL are about a long-term romantic love without any immediate consummation. While the two songs incorporate the commonly used idea of a love for a woman, the lyrical expression in the two songs is different.

39. In summary, on the basis of my analysis of the lyrics in LGIO and TOL, I found that there are no significant similarities in lyrical expression but there are differences. Moreover, when combined with my findings regarding structure, harmony, rhythm, and melody, I found that there are no significant structural, harmonic, rhythmic, melodic or lyrical similarities, individually or in the aggregate, between LGIO and TOL.

LGIO AND TOL IN THEIR ENTIRETY

40. On the basis of my analysis of LGIO and TOL in their entirety within the context of the analysis of their component elements, individually and in combination, and the analysis of related music, it is my opinion that LGIO and TOL are very different songs in their entirety. The harmonic similarity between LGIO and TOL represents common practices that predate LGIO. I did not find any significant similarities between LGIO and TOL.

SUMMARY OF FINDINGS REGARDING THE ANALYSIS OF LGIO AND TOL

41. On the basis of my musicological analysis, it is my opinion that LGIO and TOL do not share any significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate. The similarity between these two songs represents expression that was common prior to the copyright of LGIO.

III. RESPONSE TO THE STEWART REPORT

42. The Stewart report (dated December 8, 2017) fails to present any analysis of the composition in the LGIO Deposit Copy. Instead, the Stewart report analyzes the compositions in the recorded performances embodied in the commercially released “single” and “full” recordings of LGIO RP. I analyzed the LGIO Deposit Copy because it is my understanding that it is the copyrighted work.¹¹

43. The recorded performances of “Let’s Get It On” that Dr. Stewart analyzed differ from the LGIO Deposit Copy because, at the least, the performed guitar, bass and drum parts in the recorded performances are not present in the LGIO Deposit Copy. If the LGIO Deposit Copy is the copyrighted work, then the guitar, bass and drum parts cannot form the basis of Dr. Stewart’s analysis. In order to distinguish the LGIO Deposit Copy from the compositions embodied in the recordings, in this report the LGIO single and full/album recorded performances are cumulatively identified as “LGIO RP”.

44. The following is a page-by-page response with citations from the Stewart report placed in *italics*. The Stewart report does not include paragraph numbers.

LGIO RP and TOL Embody Different Overall Forms

45. The analysis in the Stewart report begins on page 2 therein starting with “general characteristics” and moving to the overall form or structure of LGIO RP and TOL. I disagree with several structural listings in Dr. Stewart’s charts on “Form”. For

¹¹ I did the same in my analysis of the sheet music *deposit copy* on behalf of Defendants in *Newton v. Diamond* and in *Skidmore v. Led Zeppelin*.

example, regarding LGIO RP, Dr. Stewart conflates the Chorus and the Verse and identifies both singularly as the Verse. Moreover, Dr. Stewart labels the sections starting at 0:48 and 2:32 of TOL as the “bridge/pre-chorus”. Generally, the section between the Verse and the Chorus that prepares the listener for the Chorus is called the “Pre-chorus.” In popular songs, a Bridge most frequently connects two Chorus sections. Thus, these two sections in TOL should be labeled “Pre-chorus”. Dr. Stewart’s choice of the term “bridge” makes the structure in TOL seem more similar to that in LGIO RP, even though there are no “bridge” sections in TOL.

46. My structural charts of LGIO RP and TOL are immediately below.

LGIO RP (single version): Form

0:00 Verse 1
 0:25 Chorus 1
 0:48 Verse 2
 1:11 Verse 3
 1:34 Bridge 1
 2:19 Verse 4
 2:43 Chorus 2
 3:05 Bridge 2 (shortened)
 3:17 Outro

LGIO RP (album or “full” version): Form

0:00 Verse 1
 0:25 Chorus 1
 0:48 Verse 2
 1:11 Verse 3
 1:34 Bridge
 2:19 Verse 4
 2:43 Chorus 2
 3:05 Bridge 2
 3:51 Outro

TOL: Form

0:00 Verse 1A at 0:00 and Verse 1B at 0:24
0:48 Pre-chorus 1
1:13 Chorus 1
1:43 Verse 2A at 1:43 and Verse 2B at 2:07
2:32 Pre-chorus 2
2:56 Chorus 2
3:26 Interlude (guitar solo)
3:50 Chorus 3 (extended)

47. At the top of page 3 of the Stewart report, Dr. Stewart opines:

“While the above structural analysis seems to suggest that the forms of the songs are different, it is important to note that the basic harmonic pattern and bass line underlying most of these sections remains the same.” [p. 3, the Stewart report]

Dr. Stewart’s flawed analysis of the “bass line” notwithstanding, there are no significant overall structural similarities between LGIO RP and TOL *as charted on page 2 of the Stewart report and charted immediately above.*

48. In the second paragraph on page 3 of the Stewart report, Dr. Stewart writes:

“...both songs are built almost entirety on a virtually identical harmonic and rhythmic foundation. [p. 3, the Stewart report]

In fact, as demonstrated below, the harmonies and the rhythms in LGIO RP and TOL are not nearly “virtually identical” and what is similar was common prior to LGIO RP.

The Use of an Occasional “Blue” Note Is Commonplace

49. In the middle of page 3, the Stewart report moves to the analysis of “Specific Musical Expression or Content”. Under “Methodology” on page 3, Dr. Stewart writes:

“Both songs occasionally deploy a ‘blue’ third (a third degree of the scale that ranges from minor to major, or somewhere in-between).” [p. 3, the Stewart report]

Dr. Stewart correctly explains that the pitch in a ‘blue’ third can be “somewhere in-between” half steps.¹² However, an “occasional” ‘blue’ note is commonplace. Moreover, the vocal melodies in LGIO RP contain many fully *flatted* thirds, *i.e.*, notes that are fully a half-step lower than the third scale degree in a major key. By way of difference, the vocal melodies in TOL do *not* contain any fully flatted thirds.

The Bass Guitar Lines in LGIO RP and TOL Are Different

50. Importantly, the LGIO Deposit Copy does not include any bass line. Therefore, any similarities Dr. Stewart finds in the “bass lines” between LGIO RP and TOL do not exist in the LGIO Deposit Copy. Regarding LGIO RP, on page 4 of the Stewart report, Dr. Stewart’s Example 1 represents the opening “bass lines” in LGIO RP and TOL. It is perfectly acceptable to extract the lowest notes in the guitar at the opening of TOL (because the **bass** guitar is not yet playing) and to compare that “bass line” in the lowest *guitar* notes with the **bass** guitar line in LGIO RP. I do so in my March 2015 “DRAFT” outline summary attached as **Visual Exhibit F**.¹³

51. However, Musical Example 1 immediately below is a transcription of the full guitar part at the opening of TOL, *i.e.*, the guitar part from which Dr. Stewart extracts the lowest notes. Dr. Stewart fails to provide any transcription of the full guitar part at the opening of TOL, which should be included in a complete report. Dr. Stewart’s omission is particularly problematic because unlike my March 2015 “DRAFT” summary outline, the Stewart report fails to provide any transcription of the **bass** guitar line in TOL; the **bass** guitar line *is* the “bass line” starting at 24 seconds through to the end of TOL at 4 minutes and 42 seconds. Dr. Stewart’s omission of any transcription or

¹² The term “third” means that the pitch is on the “third” scale degree: major scales consist of seven scale degrees numbered 1-7.

¹³ There is a typo on page 2 of my “DRAFT” outline summary: the “ii7” is missing a third “i” and should be “iii7”.

analysis of the **bass** guitar line in TOL results in a misleading and deeply flawed analysis, as discussed in detail below. For now and as demonstrated in Musical Example 1 below, the full guitar part at the opening of TOL, from which Dr. Stewart extracts the lowest notes for his analysis of the “bass line” in of TOL, includes many notes that are very different from the “bass line” in LGIO RP.

MUSICAL EXAMPLE 1

“Thinking Out Loud”

Guitar part at the opening

At 0:00



52. On pages 4-5 in the Stewart report’s flawed analysis of the “basic bass lines” in LGIO RP and TOL, Dr. Stewart fails to transcribe or analyze the actual **bass** guitar line in TOL. The **bass** guitar line in TOL (which enters at 24 seconds into TOL) differs from the lowest notes in the guitar part at the beginning of TOL. The Stewart report hides the numerous *differences* in the actual “bass line” in almost the entirety of TOL (which is played on the **bass** guitar) and the **bass** guitar line in LGIO RP. Dr. Stewart delimits his analysis to the lowest notes in the opening guitar part in TOL because they embody greater similarity to the **bass** guitar line in LGIO RP. Dr. Stewart’s analysis is misrepresentative because it hides the fact that the **bass** guitar line in TOL, which *is* the “bass line” for almost the entirety of TOL, is not nearly as similar to the **bass** guitar line in LGIO RP as the lowest notes in the opening guitar part in TOL. Even in my March 2015 brief “DRAFT” outline summary, I provide a transcription of an iteration of the actual **bass** guitar line in TOL at the bottom of page 5 therein. (See **Visual Exhibit F.**)

53. Thus, when Dr. Stewart writes, “*the bass line leaps downward by a sixth before ascending stepwise to the fifth degree of the scale*” [first paragraph, p. 4 of the Stewart report], (1) he is omitting the actual “bass line” throughout almost the entirety of

TOL and (2) he is hiding the fact that while the **bass** guitar line in LGIO RP “leaps” downward the interval¹⁴ of a sixth, the **bass** guitar line in TOL *ascends* the interval of a major third. The **bass** guitar lines move in *opposite* directions (LGIO RP leaps *down* but TOL leaps *up*) and the **bass** guitar lines leap by different intervals (the interval of a *sixth* in LGIO RP but the interval of a *third* in TOL) as demonstrated in Musical Example 2 immediately below.

MUSICAL EXAMPLE 2

LGIO RP / TOL

Comparative transcription of the **bass** guitar lines

TOL starting at 0:24

"Let's Get It On"
0:01

"Thinking Out Loud"
0:24

3

54. Thus, when the **bass** guitar enters at 0:24 of TOL and continues to the end of TOL, it is melodically *different* from the **bass** guitar line of LGIO RP shown in Musical Example 2. The corresponding intervallic relationships (*i.e.*, the space between the pitches), the melodic contour, and the rhythmic durations of the notes are different in the **bass** guitar lines in TOL and LGIO RP as further discussed below.

¹⁴ An “interval” is the space between two notes, which can be “stepwise”, or by a “leap”. A “stepwise” interval moves to an adjacent scale degree (*e.g.*, from 1 to 2), whereas a “leap” *skips* one or more scale degrees (*e.g.*, from 1 to 6).

55. As objectively demonstrated in Musical Example 2, the “bass line” in almost the entirety of TOL (which is in the **bass** guitar line), does *not* contain a descending leap of a sixth and, in fact, has many differences as compared with the **bass** guitar line in LGIO RP. Dr. Stewart’s omission of any transcription or analysis of the actual **bass** guitar line which plays in almost the entirety of TOL (beginning at 24 seconds into TOL through to the end) hides the differences between the **bass** guitar lines in LGIO RP and TOL which results in a deeply flawed and misleading analysis in the Stewart report.

56. On page 4 of the Stewart report, Dr. Stewart attempts to rationalize the omission of *all* of the **bass** guitar notes in almost the *entirety* of TOL by suggesting that (1) his purported “reductionism” is “standard in musicological analysis” and (2) he only has to deal with the “core musical expression”. However, there is no musicological standard that supports Dr. Stewart’s reduction of the “bass lines” in the entirety of TOL to the lowest notes in the guitar at the opening and omitting the actual “bass line” (in the **bass** guitar line) throughout almost the entirety of TOL. Through his tainted and unsupportable approach, Dr. Stewart ignores and omits the “bass line” in almost the entirety of TOL in his analysis. Indeed, the “core musical expression” in the “bass lines” in TOL is the **bass** guitar part from 0:24 through 4:42, the end of TOL. The reason for Dr. Stewart’s unsupportable “reductionism” is that the musical expression in the actual “bass line” in almost the entirety in TOL objectively undermines and contradicts his flawed analysis and findings. There are objective, substantive differences between the “bass lines” in LGIO RP and TOL that are omitted in the Stewart report.

57. In addition to Musical Example 2 above, the many substantive differences between the bass lines in LGIO RP and TOL are further illustrated in Musical Example 3 below, differences that are omitted in the transcriptions and analyses in the Stewart report. The bass lines are written an octave higher to facilitate the reading thereof, which is in keeping with conventional bass guitar transcriptions. In Musical Example 3 below, the transcription of the **bass** guitar line at 1:13 – which is the beginning of the Chorus in TOL – was included on page 5 in my “DRAFT” outline summary (March 2015), referenced in the Stewart report, and attached hereto as **Visual Exhibit F**.

MUSICAL EXAMPLE 3**LGIO RP / TOL**

Comparative transcription of the bass guitar parts

TOL starting at 1:13, the Chorus

"Let's Get It On"
0:01

"Thinking Out Loud"
1:13

3

The image shows two staves of musical notation in bass clef, 4/4 time, with a key signature of two sharps (F# and C#). The top staff is for "Let's Get It On" starting at 0:01. The bottom staff is for "Thinking Out Loud" starting at 1:13. The notation shows the first two bars of each piece. A small number '3' is positioned above the first bar of the bottom staff. The notes in the first bar of "Let's Get It On" are G2, E2, C2, and G2. The notes in the first bar of "Thinking Out Loud" are G2, A2, B2, and C3. The second bars show more complex rhythmic patterns with eighth and sixteenth notes.

58. As illustrated in Musical Examples 2 *and* 3 above, by way of difference:

- The bass line in bar 1 in LGIO RP *leaps downward*, but the bass line in bar 1 in TOL moves in the opposite direction with a *leap upward*;
- The bass lines in bar 1 in LGIO RP and TOL have different melodic contours (*i.e.*, melodic shapes);
- The bass line in bar 1 in LGIO RP includes the interval of a sixth, but the bass line in bar 1 in TOL does *not* include the interval of a sixth;
- The bass line in bar 1 in TOL includes the interval of a third, but the bass line in bar 1 in LGIO RP does *not* include the interval of a third;
- The melodic rhythm (*i.e.*, the rhythmic durations and metrical placements of the notes) in two (66%) of the three notes in the bass lines in bar 1 in LGIO RP and TOL are *different*;
- The bass line in bar 2 in LGIO RP consists only of “stepwise” intervals (see footnote 14 above), but the bass line in bar 2 in TOL includes a “leap”

down to scale degree 7, and there is no scale degree 7 in bar 2 in LGIO RP;

- The bass lines in bar 2 in LGIO RP and TOL have different melodic contours (the melodic contour in LGIO RP moves upward, but the melodic contour in TOL contains a combination of upward and downward movements);
- The melodic rhythm in three (60%) of the five notes in the bass lines in bar 2 in LGIO RP and TOL is *different*;
- The melodic rhythm in bar 2 in LGIO RP includes two sixteenth notes, but there are no sixteenth notes at all in bar 2 in TOL;
- The bass line in bar 3 in LGIO RP *leaps downward*, but the bass line in bar 3 in TOL moves in the opposite direction with a *leap upward*;
- The bass lines in bar 3 in LGIO RP and TOL have different melodic contours;
- The bass line in bar 3 in LGIO RP includes the interval of a sixth, but the bass line in bar 3 in TOL does *not* include the interval of a sixth;
- The bass line in bar 3 in TOL includes the interval of a third, but the bass line in bar 3 in LGIO RP does *not* include the interval of a third;
- The melodic rhythm in two (66%) of the three notes in the bass lines in bar 1 in LGIO RP and TOL is *different*;
- The bass line in bar 4 in LGIO RP includes the upward leap up of a third, but the bass line in bar 4 in TOL does not;
- The bass line in bar 4 in TOL includes a downward leap down to scale degree 7, but the bass line in bar 4 in LGIO RP does not and it does not include scale degree 7;
- The melodic rhythm in four (57%) of the seven notes in the bass line in bar 4 in LGIO RP is *different* from the melodic rhythm in the bass line in bar 4 in TOL; and
- There are four sixteenth notes in the bass line in bar 4 in LGIO RP, but there are no sixteenth notes in the bass line in bar 4 in TOL.

59. Thus, when the “bass line” in almost the entirety of TOL is compared with the “bass line” in LGIO RP, the substantive differences undermine and contradict Dr. Stewart’s opinion that the “bass lines” in LGIO RP and TOL are “nearly identical”.

The Graphic Representation in the Stewart Report Omits Notes

60. The boxed graphic representation of the “bass lines” on page 4 in the Stewart report omits three notes that are included in LGIO RP as transcribed in Example 1 on the same page of the Stewart report. The note “f-sharp” at the end of bar 1 and the notes “a” and “b” at the end of bar 2 in LGIO RP included in Example 1 on page 4 of the Stewart report are omitted in the boxed graph on the same page.

61. The boxed graphic representation of the “bass lines” and Example 1 on page 4 only compares the lowest notes in the guitar part in TOL (not the **bass** guitar line in TOL) with the **bass** guitar line in LGIO RP. This deeply flawed practice of omission in the Stewart report was explained above.

62. A comparative chart of the pitches (identified as scale degrees) in the **bass** guitar line in LGIO RP placed over the lowest notes in the guitar part in TOL based on Example 1 in the Stewart report is presented immediately below.

LGIO RP bass guitar line:	1 3 3 4 5 5 5 6
TOL lowest notes in the guitar line:	1 3 4 5 5

63. The boxed graphic representation on page 4 of the Stewart report and the analysis of the “bass lines” later in the report omit the differences between these lines in the LGIO RP **bass** guitar and the lowest notes in the guitar at the opening of TOL.

The Published Sheet Music for TOL Is a Piano and Vocal Arrangement that Contains More Ascents of a Third than Descents of a Sixth in the Bass Part

64. At the bottom of page 5 in the Stewart report, Dr. Stewart writes:

The published sheet music for TOL shows the descending interval in the bass clef throughout much of the song.

First, the published sheet music for TOL is a piano and vocal arrangement. The notes in the bass clef therein are written for the pianist's left hand to play and thereby do not necessarily represent the notes in the bass guitar line. Second, there are only four iterations of a *descent* by a sixth in the opening measures (mirroring the lowest notes played by the guitar) in the TOL published sheet music. The next four iterations include both an *ascent* by a third *and* a *descent* by a sixth immediately repeated due to a repeat sign in the published music. Importantly and contradicting Dr. Stewart's opinion cited immediately above, there are *twelve iterations* in the Chorus sections *that only include the ascent by a third* and have no descent by a sixth at all. Moreover, there are an additional *four iterations* in the Interlude section that also only include the ascent of a third, *for a total of sixteen iterations of the bass part in the TOL published sheet music that do not include the descent of a sixth but rather, include the different ascent of a third.* Thus, contrary to Dr. Stewart's opinion, the published sheet music for TOL referenced in the Stewart report includes more *ascents* of a third than descents of a sixth in the bass clef part.

65. This is demonstrated in **Visual Exhibit G**, which is a copy of the TOL published sheet music with added hand-written arrows and brackets. (As noted above, an unmarked copy of the TOL published sheet music is attached as **Visual Exhibit C.**)

66. In summary, regarding the "bass lines" in TOL, the Stewart report *omits* any transcription and analysis of the **bass** guitar line in TOL, which *is* the "bass line" in almost the entirety of TOL, from 0:24 to the end at 4:42. Instead, the Stewart report *only* analyzes of the lowest notes in the guitar part in TOL, which are the "bass line" for only the first 24 seconds of TOL. This substantial omission results in a deeply flawed analysis and unsupportable findings. It is patently clear that, contrary to Dr. Stewart's unsupportable findings, the "bass lines" in LGIO RP and TOL are not even remotely "nearly identical" or "virtually identical". In fact, there is objective musicological evidence that there are substantive *differences* between the "bass lines" in LGIO RP and in

almost the entirety of TOL. Thereby, the analysis in the Stewart report regarding the “bass lines” collapses on itself.

The Similarity in the Drum Patterns in LGIO RP and TOL Is Insignificant

67. Importantly, the LGIO Deposit Copy does not include any drum part. Therefore, any drum pattern similarities Dr. Stewart finds between LGIO RP and TOL do not exist in the LGIO Deposit Copy, which I understand is the copyright work. In the Stewart report, Dr. Stewart corrects three of his transcription errors in Example 2 in his earlier June 2015 report. Those errors were pointed out in my October 2015 Response report to the June 2015 Stewart report.

68. The boxed graph in the middle of page 6 of the Stewart report is meant to represent the drum patterns in portions of LGIO RP and TOL. However, an “x” in the “hh” (i.e., hi-hat cymbal) on the second half (or “+”) of beat 1 in bar 1 of LGIO RP is added that is not in (and thereby contradicts) Dr. Stewart’s Example 2 on the same page (above the boxed graph).

69. Moreover, Example 2 on page 6 of the Stewart report includes three differences between the drum patterns in LGIO RP and TOL:

- (1) There is a hi-hat cymbal note (or “attack”) on the second half of beat 1 in bar 1 in TOL, but there is no corresponding hi-hat cymbal note in LGIO RP;
- (2) There is a “kick” or “bass” drum note on beat 4 in bar 1 in LGIO RP, but there is no corresponding kick drum note in TOL; and
- (3) There is a “kick” or “bass” drum note on beat 4 in bar 2 in LGIO RP, but there is no corresponding kick drum note in TOL.

These drum patterns in LGIO RP and TOL are illustrated in Musical Example 4 below.

MUSICAL EXAMPLE 4

“Let’s Get It On” / “Thinking Out Loud”

Comparative transcription of the drums

70. As illustrated in Musical Example 4 above, the *similarities* between the drum patterns in LGIO RP and TOL are:

- Eighth notes in the hi-hat cymbals which was commonplace prior to LGIO RP and continues to be a common practice in numerous genres in popular music;
- Backbeats (beats 2 and 4) on the snare drum which was already a musical building block in popular music prior to LGIO RP; and
- A kick drum pattern that is *not* identical, the similarity of which is found in compositions that predate LGIO RP and in student drum method books.

71. Also notable is that the guitar part to which Dr. Stewart delimits his analysis of the “bass line” in TOL does *not* play with the drums at the opening of TOL. In the opening of TOL, percussive-like attacks are played on the guitar by what sounds

like striking the guitar strings with the right hand while deadening them with the left hand. These attacks are notated with x's in the full guitar part transcription in Musical Example 1 on page 17 above. Thus, the drum part in TOL is *not combined* with the guitar part in the opening of TOL. Rather, the drum pattern in TOL is combined with the “bass line” that is in the **bass** guitar part, not the guitar part; a bass line that has substantial differences from the bass line in LGIO RP. Thus, any purported “combination” of “nearly identical” drum patterns and bass lines in LGIO RP and TOL in the Stewart report is demonstrably wrong and like the analysis of the “bass lines”, collapses on itself.

72. Regarding the drum patterns, in the first paragraph on page 6 in the Stewart report, Dr. Stewart opines that in LGIO RP and TOL:

“The bass drum or ‘kick’ is played on [beat] ‘one’ with two syncopations or off-beat figures on the ‘and’ of [beat] two and the ‘and’ of [beat] three. [p. 6, the Stewart report]

However, while there are “two syncopations”¹⁵ in the kick drum in each bar in TOL, as transcribed in Example 2 in the Stewart report and in Musical Example 4 above, by way of difference, there is only *one* syncopation in the kick drum in each bar in LGIO RP. While the kick drum note on the second half of beat 3 in TOL is isolated and creates a rhythmic syncopation or disruption of the basic pulse, by way of difference, the kick drum note on the second half of beat 3 in LGIO RP is *not* isolated. Instead, its trajectory leads to the additional kick drum note on beat 4, a note that is *not* on beat 4 in TOL as *transcribed in Example 2 of the Stewart report*. Thus, by way of difference to TOL and as transcribed in Dr. Stewart’s own Example 2, the kick drum note on the second half of beat 3 in LGIO RP does *not* create a rhythmic syncopation; unlike TOL, the kick drum in LGIO RP does not have “two syncopations” in each bar.

¹⁵ A “syncopation” is the interruption or displacement of the basic pulse from a strong beat to a weak beat. (*Harvard Dictionary of Music*, p. 861. Also see *The Oxford Companion to Music*, Oxford University Press, 2002, p. 1,235.)

The Similarity in the Drum Patterns Represents Common Practices that Predate LGIO RP and that Are Found in Student Drum Method Books

73. The similarity between the drum patterns in LGIO RP and TOL represents common practices that predate LGIO RP. For example, in the drum method book, *100 Famous Funk Beats*, the drum pattern in James Brown's classic 1965 song "Papa's Got a Brand New Bag" is presented. The kick drum, snare drum rim "click", and hi-hat pattern in "Papa's Got a Brand New Bag" (starting at around 4.5 seconds into the sound recording) is *identical* to the rhythm in the repeating drum pattern in TOL as transcribed in Example 2 on page 6 of the Stewart report and as transcribed in Musical Example 4 above. Thereby, the drum pattern in James Brown's classic 1965 song (which predates LGIO RP by 8 years) is *more similar* to the repeating drum pattern in TOL than is the drum pattern in LGIO RP.

74. Moreover, the same drum method book includes the drum pattern in James Brown's 1964 song "Out of Sight". The kick drum, snare drum rim "click", and ride cymbal pattern in bar 1 of this 2-bar drum pattern from "Out of Sight" (starting at the beginning of the verse at 5 seconds into the sound recording) is *identical* to the rhythm in the repeating drum pattern in TOL. Further, the drum pattern in the second bar of this 2-bar drum pattern in "Out of Sight" is the same as in TOL except for an additional kick drum note. As transcribed in Example 2 of the Stewart report and in Musical Example 4 above, there is also one additional kick drum note in the drum pattern in LGIO RP as compared with that in TOL. The book cover, bibliographic page, and the pages with hand-written brackets on the drum pattern transcriptions identified above are attached as **Visual Exhibit I**.

75. In addition, *The Drumset Musician* includes an *identical* kick drum, snare drum, and hi-hat drum pattern rhythm as that in TOL in exercise "#8a" on page 12. Thus, this drum method book exercise is *more similar* to the drum pattern in TOL than is the drum pattern in LGIO RP. Further, in exercise "#8b" on the same page 12 in *The Drumset Musician*, the kick and snare drum rhythm pattern is identical to the kick and snare drum pattern in TOL, but with quarter notes in the hi-hat cymbal. Later on page

36 in the same drum method book in exercises “#6a” and “#6b”, the kick and snare drum pattern rhythm is identical to the kick and snare drum pattern rhythm in TOL, but with sixteenth notes in the hi-hat cymbal. The book cover, bibliographic page, and the pages with the transcriptions identified above are attached as **Visual Exhibit J**.

76. In a third drum method book, *Mel Bay’s Funk Drumming*, the eighth notes in the hi hat with the syncopated kick drum pattern in exercise “#7” on page 13 is the same rhythm as the eighth notes in the hi hat and syncopated kick drum pattern in TOL. There is no snare drum part in exercise “#7” because as noted in the heading of this section of exercises on the previous page 12, the exercises therein are limited to hi-hat cymbal and bass (kick) drum. The book cover, bibliographic page, and pages 12 and 13 identified above are attached as **Visual Exhibit K**.

77. In a fourth drum method book, *FastTrack Music Instruction: Drums2* (1997), the identical kick drum, snare drum, and hi-hat cymbal drum pattern rhythm as compared with that in TOL is bar 1 of a repeating 2-bar drum pattern. The book’s cover, bibliography page and the page with the drum pattern (with hand-written arrows to identify the six iterations of the drum pattern) are attached as **Visual Exhibit L**.

78. In summary, there are no significant similarities in the drum patterns in LGIO RP and TOL. There are differences in the drum patterns in LGIO RP and TOL as transcribed in the Stewart report. The similarities in the drum patterns were in use in James Brown songs prior to LGIO RP and are also found in student method books.

There Are No Significant Similarities in the Vocal Melodies in LGIO RP and TOL

79. On page 7 of the Stewart report, Dr. Stewart finds:

“The first melodic phrases heard in both songs are substantially similar.”

[p. 7, the Stewart report]

In fact, the opening vocal melody in LGIO RP is very different from the opening melody in TOL as demonstrated in Track 4 on **Audio Exhibit 1** and detailed below. On Track 4 I play at the piano, the opening vocal melodies in LGIO RP and TOL *as transcribed in Example 3* in the Stewart report.

80. Example 3 in the Stewart report is a transcription of the opening vocal melody in LGIO RP and TOL. While I don't agree with some of the notes in the transcription, the opening vocal melodies in LGIO RP and TOL, even as *transcribed by Dr. Stewart*, are significantly different. (My transcription of the opening vocal melodies is attached as **Visual Exhibit M.**)

81. Dr. Stewart's chart of the order of the pitches in the opening vocal melodies in LGIO RP and TOL is presented below Example 3 on page 7 of the Stewart report as numerical scale degrees. That chart is copied immediately below. In order to facilitate a comparison, pitches that line up in the same order are in **red** and pitches that are different are in **black**.

LGIO RP: **3** **4** **5** **4** **3** **2** **2** **1** **2**

TOL: **3** **5** **6** **5** **3** **2** **1** **2** **3** **6** **1**

Thus, as transcribed and charted in the Stewart report, only 3 out of a total of 11 pitches¹⁶ in the opening vocal melody in TOL are the same pitches as in the opening vocal melody in LGIO RP. Any similarity in the pitches between these two melodies is fragmentary and minimal. But in fact, only two pitches line up because contrary to his own transcription in musical notation in Example 3 on the same page 7 of his report, Dr. Stewart's charted scale degree numbers ignore and *omit* the difference between scale degree 3 in TOL and scale degree (flatted) "b3" (on the second half of beat 4 in bar 1) in Example 3 in LGIO RP. Thus, in his charts on page 7 of his report, Dr. Stewart's labeling of a "3" (rather than a "b3") in the middle of the pitch sequence in LGIO RP is misleading and incorrect. In fact, the "3" in the middle of the LGIO RP pitch sequence (which should be marked "b3") is a different pitch as compared with the "3" in the middle of the TOL pitch sequence based on Dr. Stewart's own transcription of the flatted "3" in Example 3.

¹⁶ As transcribed and charted on page 7 in the Stewart report, there are a total of 9 pitches in the opening vocal melody in LGIO RP and a total of 11 in TOL. While there are "grace" (miniature) notes in his Example 3 transcription, Dr. Stewart, in keeping with musicological practices, correctly omits them from his chart.

82. There are only seven scale degrees in a major scale, numbered 1-7.¹⁷ The fact that only 3 pitches out of respective 9-pitch and 11-pitch melodies line up in the same order is insignificant, and as transcribed and charted in the Stewart report, fragmentary and minimal. Moreover, had Dr. Stewart charted a “b3” not a “3”, only 2 pitches would line up in the same order out of respective 9-pitch and 11-pitch melodies.

83. Next on page 7, Dr. Stewart compares only the pitches set to eight syllables in each melody. While the vocal melody in LGIO RP is set to *eight* syllables, by way of difference, the vocal melody in TOL is set to *eleven* syllables. Moreover, while the syllable “try” in LGIO RP is set to *two* notes (not counting the miniature “grace” note), there is no syllable in the vocal melody in TOL that is set to *two* notes (not counting the miniature notes¹⁸). The lyrics to which the first eight syllables are set in each opening vocal melody are very different as follows:

LGIO RP: “I’ve been real-ly try-in’ ba-by” (8 syllables)

TOL: “When your legs don’t work like they used to be-fore” (11 syllables)

84. A chart of the order of the pitches only set to the first eighth syllables in the opening vocal melodies in LGIO RP and TOL is presented at the bottom of 7 of the Stewart report. In that reduced chart, Dr. Stewart deletes the second scale degree “2” in LGIO RP to manufacture a “3 2 1 2” order of pitches *that does not exist* in the melody and *that contradicts his own transcription in Example 3*. Moreover, Dr. Stewart omits the last three pitches in the two bars he places in issue in TOL. Added to this

¹⁷ In the key of D major, which is the key in which Dr. Stewart and I compare LGIO RP and TOL, the pitch “d” is scale degree 1, the pitch “e” is scale degree 2, the pitch “f-sharp (“f#”) is scale degree 3, the pitch “g” is scale degree 4, the pitch “a” is scale degree 5, the pitch “b” is scale degree 6, and the pitch “c#” is scale degree 7.

¹⁸ I disagree with the insertion of a “grace” (miniature) note in the opening vocal melody in TOL as transcribed in Example 3 in the Stewart report. While there is a very subtle vocal inflection at the “f#” pitch, this vocal inflection does not merit a separate “grace” note preceding the “f#” pitch. The Stewart report transcription is contrary to the published sheet music, which does not include a “grace” note in this opening vocal melody. Dr. Stewart references the TOL published sheet music at the bottom of page 5 of his report regarding the transcription of the bass pattern.

misleading chart is the fact scale degree “3” in the middle of the pitch sequence in LGIO RP is “b3” in Example 3 which is a *different* pitch from the “3” in the middle of the pitch sequence in TOL.

The Stewart Report’s Analysis of the Vocal Melodies Is Flawed and Self-Contradictory

85. Dr. Stewart’s selective omission of notes and misleading labeling of scale degree “3” expose his flawed analysis. Yet, even with these omissions and misleading labeling, the order of the pitches in the opening vocal melodies in LGIO RP and TOL is different and any similarity is insignificant, minimal, and fragmentary.

86. At the top of page 8 in the Stewart report, Dr. Stewart engages in further misleading tactics. He puts parentheses around two pitches (scale degrees 1 and 6) and in the second chart on page 8, omits those notes. The chart near the middle of page 8 in the Stewart report (copied immediately below) omits these two notes in the TOL vocal melody. In order to facilitate a comparison, pitches that line up in the same order are in red and pitches that are different are in **black**.

LGIO RP:	3	4	5	4	3	2	2	1	2
TOL:	3	5	6	5	3	2	2	3	1

Even after Dr. Stewart’s melodic surgery in which he removes pitches from TOL, as charted in the Stewart report, only 4 out of a total of 9 pitches in the manipulated opening vocal melody in TOL are in the same order as the opening vocal melody in LGIO RP. Thus, more than 50% of the pitches are *different, even after Dr. Stewart’s omission of two pitches in TOL*. Importantly, any similarity in the pitches between these two melodies in TOL and LGIO RP as transcribed in Example 3 on page 7 of the Stewart report is insignificant, fragmentary, minimal, and in Dr. Stewart’s second chart on page 8, manufactured.

87. Dr. Stewart’s rationale for omitting notes in the vocal melody in TOL is “because melodically they function as neighbor tones and/or because of their extremely

brief duration and weak rhythmic placement.” [p. 8, the Stewart report] However the presence of the pitch on scale degree “6”, the second to last note in the opening vocal melody in TOL, significantly alters the melodic contour (i.e., the melodic shape) and lends a very different resolution of the melody in TOL as compared with the melody in LGIO RP as transcribed on page 7 in the Stewart report. Far from being a one-time throwaway note, this scale degree “6” occurs consistently in three out of the four Verse A melodic phrases in TOL. The *omission* of this scale degree “6” in the analysis of the opening melodies in LGIO RP and TOL hides a significant melodic difference from LGIO RP, and like other instances of omission in the Stewart report, undermines the credibility of Dr. Stewart’s analyses and findings.

The Stewart Report Fails to Analyze the Melodic Rhythms in the Opening Vocal Melodies

88. Staying with the opening vocal melodies in LGIO RP and TOL, Dr. Stewart fails to analyze the *melodic rhythms* in these melodies. As transcribed into musical notation in Example 3 on page 7 of the Stewart report, the rhythmic durations of the pitches (i.e., the melodic rhythm) in the opening vocal melodies in LGIO RP and TOL are *very different*.

89. As transcribed in Example 3 on page 7 of the Stewart report, the first bar in LGIO RP consists of five eighth notes. By way of significant difference, the first bar in TOL consists of notes with melodic rhythms in the following order: two sixteenth notes, three eighth notes with a “grace” (miniature) note preceding the third eighth note, and two sixteenth notes.

90. Now moving to bar 2 as transcribed in Example 3 on page 7 of the Stewart report, the second bar in LGIO RP consists of notes with melodic rhythms in the following order: a dotted eighth note preceded by a “grace” note, a sixteenth note “tied” (i.e., held over) to a sixteenth note which equals an eighth note preceded by a grace note, a dotted eighth note “tied” to an eighth note, and a final eighth note. By way of significant difference, the second bar of TOL consists of notes with melodic rhythms in the following order: an eighth note, two sixteenth notes, and a quarter note. Thus and

for example, (1) while there is a dotted eighth note and a dotted eighth note tied to an eighth note in the second bar in LGIO RP there are none in the second bar (or even the first bar) in TOL and (2) while there is a quarter note in the second bar in TOL there are no quarter notes in the second bar (or even the first bar) in LGIO RP.

91. The significant differences in the melodic rhythms as well as in the order of the pitches in the opening vocal melodies in LGIO RP and TOL is manifest in the playing of them side-by-side at the piano on Track 4 of **Audio Exhibit 1** attached to this report.

92. In summary, even after Dr. Stewart's omission and mislabeling of notes, the "similarity" in the order of pitches in the opening vocal melodies in LGIO RP and TOL is merely an isolated "3" pitch, followed by three *different* pitches, followed by the same fragmentary pitches "3, 2, 2", and then followed by two *different* pitches. Thus, the similarity in the order of the pitches is still demonstrably insignificant at best. Even after the omission and manipulation of the pitches in TOL, Dr. Stewart can only manufacture an order of pitches in which more than 50% of the pitches are still in a *different* order, and those that are in the same order are fragmentary and minimal. Of course, when the *actual* pitches that are transcribed in Example 3 on page 7 of the Stewart report are compared, the similarity is even bleaker: only 3 out of a total of 11 pitches in TOL line up with pitches in LGIO RP *as charted and transcribed in the Stewart report*. Thus, 72% of the pitches in the opening vocal melody in TOL are different as compared with the pitches in the opening melody in LGIO RP. When one adds the *significantly different melodic rhythms* to which these pitches have been set in the two melodies, the demonstrably significant differences and lack of any significant similarities in these melodies is firmly established. There is no musicological evidence to support a finding that the minimal and fragmented similarity in pitches and significant differences in melodic rhythms in the vocal melodies at the opening of LGIO RP and TOL is the result of copying.

There Are No Significant Similarities between a TOL Chorus Melody and an LGIO RP Verse 4 Melody

93. Example 4 at the top of page 9 of the Stewart report is a transcription of a vocal melody that is at the end of Verse 4 in LGIO RP and a vocal melody at the beginning of the Chorus in TOL. Dr. Stewart writes:

“[A]fter beginning on [scale degree] 3, the melody in each song features repeated notes descending from 5 to 3 with a penultimate note on [scale degree] 2 before the final [scale degree] 3.” [p. 9, the Stewart report]

A chart of the order of the pitches in the vocal melodies in Example 4 is presented as scale degree numbers in the middle of page 9 of the Stewart report and copied immediately below. In order to facilitate a comparison, pitches that line up in the same order are in **red** and pitches that are different are in **black**.

LGIO RP:	3	5	4	4	3	3	3	3	1	2	3
TOL:	3	5	5	5	4	4	4	3	3	2	3

94. As transcribed and charted on page 9 in the Stewart report, only 5 out of a total of 11 pitches in the vocal melodies in LGIO RP and TOL are in the same order. Thus, more than 50% of the pitches are in a *different* order as transcribed and charted in the Stewart report. Indeed, only two pitches line up at the beginning followed by five *different* pitches, then the same isolated scale degree “3” occurs followed by a *different* pitch and ending with the same fragmented pitches “2-3”. The purported similarity between the pitches in these two melodies in TOL and LGIO RP is insignificant, fragmentary, and minimal as transcribed and charted on page 9 of the Stewart report.

The Stewart Report’s Analysis of the Verse and Chorus Vocal Melodies Is Flawed and Self-Contradictory

95. Staying with the comparison of a vocal melody from the Chorus in TOL and one from Verse 4 in LGIO RP as transcribed and analyzed on page 9 in the Stewart report and charted at paragraph 93 above, Dr. Stewart’s addition of the grace

(miniature) note “f#” at the beginning of the TOL melody in Example 4 is incorrect and contradicts his transcription of the same melody in Example 6 on page 8 of his June 3, 2015 report (attached as **Visual Exhibit H**). The “grace” note “f#” at the beginning of the TOL melody in Example 4 on page 9 of the Stewart report is *not* in his earlier Example 6 of his June 2015 report, is *not* in the published sheet music (which is referenced in the Stewart report), and not in the TOL melody.

96. Dr. Stewart includes this grace note “f#” in his chart of scale degrees on page 9, copied in paragraph 93 above. The first number “3” next to “TOL” in that chart represents the grace note. However, by way of self-contradiction to his earlier methodology, Dr. Stewart did *not* chart the grace notes in his analysis of the other vocal melodies at the opening of LGIO RP and TOL two pages earlier, on page 7, in the Stewart report. Indeed, in footnote 16 above regarding Dr. Stewart’s chart of the pitches in his earlier Example 3, I wrote: “While there are grace (miniature) notes in his Example 3 transcription, Dr. Stewart, in keeping with musicological practices, correctly omits them from his chart.” Thus, even if one accepts the grace note on scale degree 3 at the beginning of the TOL Chorus melody in Example 4 in the Stewart report (I do not, and it’s not in the published TOL sheet music), Dr. Stewart contradicts accepted musicological practices and his own methodology two pages earlier in his report by including this grace note (scale degree “3”) in his chart on page 9. This further reduces the minimal and fragmentary similarity between the TOL Chorus melody and the LGIO RP Verse 4 melody transcribed in Example 4 on page 9 of the Stewart report.

97. Perhaps the most egregious act of self-contradiction in Dr. Stewart’s analysis of the vocal melodies in Example 4 on page 9 of his report is his emphasis on scale degree 2, which is merely the second to last note in both melodies. [p. 9, the Stewart report] Recall that Dr. Stewart’s rationale for omitting notes in the vocal melody in TOL transcribed in Example 3 and analyzed earlier in the Stewart report was “because melodically they function as neighbor tones and/or because of their extremely brief duration and weak rhythmic placement.” [p. 8, the Stewart report] As transcribed in Example 4 on page 9 of the Stewart report, scale degree “2”, the second to last note of the TOL Chorus melody, functions (1) as a lower “neighbor tone”, (2) has the same

“extremely brief duration” (a sixteenth) as the notes in TOL Dr. Stewart omitted earlier, and (3) has a “weak rhythmic placement”. In fact, this note has the same rhythmic placement as scale degree “1” that Dr. Stewart omitted from his chart regarding Example 3 just a few pages earlier in his report. Dr. Stewart cannot have it both ways.

98. Thus, as transcribed by Dr. Stewart in his own Example 4, there is nothing particularly significant about scale degree 2 in the 11-note melody in the Chorus in TOL. Given the ridiculous lack of similarity in the order of the pitches illustrated in the chart on page 9 in the Stewart report and copied at paragraph 91 above, Dr. Stewart once again attempts to manufacture a purportedly significant similarity; scale degree 2 in both melodies is merely the second to last note. In so doing, he not only contradicts his own transcription in Example 4, he contradicts and belies his own analysis 2 pages earlier that “neighbor tones”, “extremely brief” in duration, and in a “weak rhythmic placement” should be omitted from a comparative scale degree chart. Using Dr. Stewart’s own method a few pages earlier, this scale degree 2 “neighbor tone”, which is “extremely brief” and has a “weak rhythmic placement”, is *not* remotely an important note in this TOL melody. Dr. Stewart cannot have it both ways.

The Stewart Report Fails to Analyze the Melodic Rhythms in a Chorus Melody in TOL and a Verse 4 Melody in LGIO RP

99. Staying with Dr. Stewart’s analysis of a TOL Chorus melody and a LGIO RP Verse 4 melody on page 9 of his report, Dr. Stewart fails to analyze the *melodic rhythms* in these melodies. As transcribed into musical notation in Example 4 on page 9 of the Stewart report, the rhythmic durations of the pitches (or melodic rhythm) are very different.

100. As transcribed in Example 4 on page 9 of the Stewart report, the first bar of LGIO RP consists of two “pickup” notes, an eighth note and a quarter note. However, there are no corresponding “pickup” notes in the first bar of TOL. The second bar in LGIO RP consists of notes in the following order: two sixteenth notes, an eighth note tied to a sixteenth note, an eighth note, a sixteenth note tied to an eighth note, two eighth notes, a sixteenth note, and a sixteenth note tied to a quarter note. By way of

significant difference, the corresponding bar in TOL consists of notes in the following order: an eighth note preceded by a grace (miniature) note, a sixteenth note, a “triplet” (three notes that equally divide a quarter beat), four sixteenth notes, and an eighth note. Thus and for example, while there is a “triplet” in TOL, there are no “triplets” in LGIO RP and, while there is a set of four sixteenth notes in TOL, there is no set of four sixteenth notes in LGIO RP. In addition, the LGIO RP melody ends with a syncopated note on the final sixteenth of beat 4, but by way of significant difference, the TOL melody ends squarely on the “downbeat” (beat 1) of the next bar.

101. The significant differences in the melodic rhythms and in the order of the pitches in the melody from Verse 4 in LGIO RP and the melody from the Chorus in TOL is manifest in the playing of them side-by-side at the piano on Track 5 of **Audio Exhibit 1** attached to this report.

102. In summary, even if one accepts the contradictory inclusion of the grace note at the beginning of TOL and in the chart on page 9 in the Stewart report, the *similarity* in the order of pitches in these melodies is merely two pitches that line up at the beginning followed by *five different* pitches, an isolated scale degree 3 that lines up followed by a *different* pitch, and ending with the fragmented pitches “2-3” that line up. There are no significant similarities. Without the inclusion of Dr. Stewart’s contradictory scale degree “3” at the beginning of TOL, the insignificant similarity is even more fragmented and minimal: only 4 out of 11 pitches in LGIO RP line up with pitches in TOL. When the significantly different *melodic rhythms* are added to the different order of pitches, the significant differences and lack of any significant similar between these melodies is firmly established. There is no musicological evidence to support a finding that this minimal and fragmented similarity in pitches set to very different melodic rhythms in these vocal melodies in LGIO RP and TOL is the result of copying.

There Are No Significant Similarities Between a TOL Chorus Melody and “Variant” Melodies in LGIO RP

103. Continuing with purported similarities in a melody from Verse 4 in LGIO RP and the opening Chorus melody in TOL, Dr. Stewart writes:

“Variants of this passage [Verse 4 vocal melody in LGIO RP] can also be heard in LGIO [RP] at 0:17 and 3:38.” [p. 9, the Stewart report]

Dr. Stewart fails to transcribe or chart the pitches in the supposed “variants”. In fact, these supposed “variants” of the melody at 0:17 and 3:38 are only vaguely related as illustrated in the scale degree chart of the pitches in these melodies in LGIO RP I prepared immediately below.

At 0:17 in LGIO RP: 5-4-b3-2-1-2

At 3:38 in LGIO RP: 5-4-4-3, 3-3-1-1 (only in the single version)

104. Dr. Stewart fails to provide any analysis of these supposed “variants” or support for finding any significant similarity to a Chorus melody in TOL.

There Are No Significant Similarities between the TOL Vocal and Guitar Melodies in the Interlude and a Verse 1 Melody in LGIO RP

105. Example 5 on page 10 of the Stewart report is a transcription that includes a vocal melody at the beginning of Verse 1 in LGIO RP (the top line of music), vocal and guitar melodies during the Interlude in TOL (the middle line of music), and a transcription of a portion of a “live” performance by Ed Sheeran as seen on YouTube (the bottom line of music). Dr. Stewart offers very little analysis of the vocal and guitar melodies from the Interlude in TOL and the vocal melody at the beginning of Verse 1 in LGIO RP. His comparative discussion merely consists of the following:

“This passage, like the passage in example 4, consists of repeated notes on a descending scale.” [p. 10, the Stewart report]

106. Dr. Stewart’s brief description cited above is followed by a chart of the order of pitches as scale degree numbers. Immediately below is a copy of Dr. Stewart’s chart of the pitches in the melody from Verse 1 in LGIO RP and the “la, la, la...” vocal melody in the Interlude of TOL. In order to facilitate a comparison, pitches that line up in the same order are in **red** and pitches that are different are in **black**.

LGIO RP (Verse): 8 8 7 7 8 7 7 6 5 3 5 1 6 5
 TOL Vocal (Interlude): 8 8 8 7 7 7 6 6 6 5 5 5 3

107. As transcribed and charted on page 10 in the Stewart report, only 6 out of a total of 14 pitches in the “la, la, la...” vocal melody in LGIO RP line up with the vocal melody in TOL (there are a total of 13 pitches in the TOL vocal melody). Thus, more than 50% of the order of the pitches are *different* as transcribed and charted in the Stewart report. The “similarity” is merely fragmentary.

108. Notably, the first 12 of a total of 13 pitches in the vocal melody in TOL are simply repeated notes in a stepwise descending D major scale, a basic musical building block. A stepwise descending D major scale is written as “8-7-6-5”. The first 12 pitches in the 13-pitch melody in TOL are “888-777-666-555” as transcribed and charted in the Stewart report. But, the melody in LGIO RP does not consistently descend on the D major scale. This is no more than an idea expressed differently in LGIO RP and TOL.

109. As transcribed and charted on page 10 of the Stewart report, the melody in LGIO RP starts with two (not three) iterations of scale degree 8 followed by two (not three) iterations of scale degree 7 and by way of further difference from TOL, the melody in LGIO RP then changes direction and moves back *up* to scale degree 8. *After* the ascent up to scale degree 8, the descent in LGIO RP resumes a very different order from the “888-777-666-555-3” pitch descent in TOL as charted on page 10 in the Stewart report and copied and charted above at paragraph 106.

110. Dr. Stewart misleads by failing to explain that in his chart at the bottom of page 10, the first scale degree “5” followed scale degree “3” is *significantly different* in the two songs: in LGIO [RP], “5” to “3” is a *leap up by a sixth* but in TOL, “5” to “3” is a *leap down by a third*. Thus, what appears in the chart as a similar “5” to “3” in the middle of LGIO [RP] and at the end of TOL is actually a significant melodic *difference*.

111. Now moving to the chart of the pitches in “TOL (guitar)” and the vocal melody in LGIO RP at the bottom of page 10 of the Stewart report, as charted there are significant differences and no significant similarities in these two melodies. A copy of

the chart at the bottom of page 10, placing the LGIO RP Verse melody over the TOL *guitar* melody, is copied immediately below. In order to facilitate a comparison, pitches that line up in the same order are in **red** and pitches that are different are in **black**.

LGIO RP: 8 8 7 7 8 7 7 6 5 3 5 1 6 5
 TOL Gtr.: 8 8 8 8 7 7 7 6 6 6 5 5 5 5

112. As transcribed and charted on page 10 in the Stewart report, only 7 out of a total of 14 pitches vocal melody in LGIO RP line up with the guitar melody in TOL. Thus, 50% of the pitches are in a *different* order as transcribed and charted in the Stewart report. Moreover, the fragmented similarity is a function of the fact that the guitar melody in the Interlude in TOL merely descends down a D major scale, which is a basic musical building block. The similarity as charted by Dr. Stewart is fragmentary, insignificant, and a function of two different expressions of a basic musical building block idea.

The Stewart Report Fails to Analyze the Melodic Rhythms in the Interlude Melodies in TOL and a Verse 1 Melody in LGIO RP

113. Staying with Example 5 in the Stewart report, Dr. Stewart fails to analyze the *melodic rhythms* in these melodies. As transcribed in musical notation in Example 5 on page 10 of the Stewart report, the rhythmic durations of the pitches in the vocal and guitar melodies in the Interlude in TOL and the vocal melody from Verse 1 in LGIO RP are very different.

114. As transcribed in Example 5 on page 10 in the Stewart report, the first eleven out of a total of thirteen notes in the *vocal* melody in the Interlude in TOL are all triplets, but by way of significant difference, there are no triplets at all in the melody from Verse 1 in LGIO RP.

115. In the Interlude *guitar* melody in TOL, as transcribed in the middle line in Example 5 in the Stewart report, the first twelve out of a total of fourteen notes in the guitar melody in the Interlude in TOL are all triplets. By way of significant difference, there are no triplets at all in the melody from Verse 1 in LGIO RP.

116. The significant differences in the melodic rhythms, added to the differences in the order of the pitches, in the Verse 1 melody in LGIO RP and the Interlude vocal melody in TOL are manifest in the playing of them side-by-side at the piano on Track 6 of **Audio Exhibit 1** attached to this report. (As analyzed above, the significant differences and lack of any significant similarities between the vocal melody in the Interlude and the Verse 1 melody in LGIO RP are also present between the guitar melody in the Interlude and the Verse 1 melody in LGIO RP.)

117. In summary, the vocal and guitar melodies in the Interlude in TOL are significantly different from the vocal melody in Verse 1 in LGIO RP. There are no significant similarities. Dr. Stewart's scant analysis and finding – that the pitches in melodies descend on repeated notes – merely points to their descent on a D major scale, a basic musical building block that is expressed differently in each song. Importantly, as transcribed and charted on page 10 of the Stewart report, the order of the pitches is different and the melodic rhythms are significantly different in the vocal and guitar melodies in the Interlude in TOL as compared with the vocal melody in Verse 1 in LGIO RP. There is no musicological evidence to support a finding that this minimal and generic similarity in the order of the pitches *set to very different melodic rhythms* in these melodies in LGIO RP and TOL is the result of copying.

Ed Sheeran's Inclusion of a Short Passage from LGIO RP in a Subsequent Live Performance of TOL Does Not Constitute Musicological Evidence of Copying During the Creation of TOL

118. As noted above, the bottom line of music in Example 5 on page 10 of the Stewart report is a transcription of a short portion of the vocal melody of a portion of a "live" performance by Ed Sheeran as seen on YouTube (the bottom line of music). I do not agree with all of the notes in Dr. Stewart's transcription. However, even as transcribed in Example 5, there are no significant similarities with melodies in TOL. At the bottom of page 9 in the Stewart report and regarding the portion of the vocal melody at the opening of Verse 1 in LGIO RP, Dr. Stewart writes:

“Sheeran himself quotes this passage from LGIO [RP] when he goes into ‘Let’s Get It On’ during a live performance of ‘Thinking Out Loud’.” [p. 9, the Stewart report]

On page 11 of the Stewart report, Dr. Stewart continues his discussion of Ed Sheeran’s quote of a portion of the opening melody from Verse 1 in LGIO RP in a live performance of TOL. Dr. Stewart’s speculation here is unconvincing. In this live performance, during the Interlude section of TOL, Ed Sheeran replaces his singing of the “la, la, la...” melodic phrase with the singing of the opening melody and lyrics in Verse 1 in LGIO RP. That substitution does not remove any of the lyrics in TOL because the phrase from LGIO RP replaces a melodic phrase set to “la, la, la...” in TOL. Moreover, given the commonplace similarities in the chord progressions, the harmonically consonant use of the portion of the verse vocal melody from LGIO RP in the Interlude in TOL is neither musicologically meaningful nor significant.

119. Ed Sheeran's inclusion of this passage during a live performance, like the creation of any “mashup” of LGIO RP and TOL or other sets of songs, is not musicological evidence that Ed Sheeran or his co-writer copied LGIO RP during the *creation* of TOL. The live performance of TOL to which Dr. Stewart points was obviously presented *after* the creation of TOL. Like any other “mashup”, it simply recognizes the shared, commonly used chord progression, which, as demonstrated earlier and later in this report, exist in many other songs.

120. In summary, the substitution of a portion of the vocal melody and “la, la, la...” lyrics in the Interlude in TOL by a portion of the melody and lyrics from Verse 1 in LGIO RP does not remove any lyrics from TOL, because the replaced a phrase in TOL is set to “la, la, la....” Moreover, the chord progressions in the Interlude in TOL are sufficiently similar to the commonplace chord progression in LGIO RP to make the use of the portion of the melody from LGIO RP during the Interlude in TOL harmonically consonant. The inclusion of this passage from LGIO RP is not musicological evidence that Ed Sheeran or his co-writer copied LGIO RP during the *creation* of TOL.

There Are No Significant Harmonic Similarities in LGIO RP and TOL

121. On page 11 of the Stewart report, Dr. Stewart opines:

“The basic harmony [in LGIO RP and TOL] could be described as

LGIO [RP] I iii IV V

TOL I I/3 IV V” [p. 11, the Stewart report]

122. As analyzed by Dr. Stewart, both songs use a similar chord progression and a harmonic rhythm of two chords per bar in which the second and fourth chords are anticipated (i.e., they occur on the second half of beat 2).

123. The basic “I iii IV V” chord progression in LGIO RP was in common use prior to LGIO RP. For example, as presented earlier in this report, the following twelve songs include this basic chord progression and were released prior to 1973.

- a. “True Love Ways” (1960) by Buddy Holly
- b. “Last One to Know” (1961) The Fleetwoods
- c. “Once Upon a Dream” (1963) by Billy Fury
- d. “A Summer Song” (1964) by Chad and Jeremy
- e. “Fun, Fun, Fun” (1964) by The Beach Boys
- f. “I Go to Pieces” (1964) Peter & Gordon
- g. “You Didn’t Have to Be So Nice” (1965) The Lovin’ Spoonful
- h. “Georgy Girl” (1966) The Seekers, (1967) The Ventures, and (1967) 101 Strings Orchestra
- i. “Different Drum” (1967) Stone Poneys feat Linda Ronstadt
- j. “Hurdy Gurdy Man” (1968) Donovan

k. “I Started a Joke” (1968) The Bee Gees

l. “Crocodile Rock” (1972) Elton John

124. Moreover, the same basic “I iii IV V” chord progression is found in chord and guitar method books. The elementary guitar method books *Money Chords: A Songwriter’s Sourcebook of Popular Chord Progressions* and *Guitar for Advanced Beginners* feature the “I iii IV V” chord progression (see **Visual Exhibits D and E**).

125. Thus, even if the chord progression in TOL was “I iii IV V”, and it is not, that chord progression was in common use prior to LGIO RP, is featured in beginner guitar method books, and I am confident that additional searches would yield even more prior art and student method book use.

126. In addition and as presented earlier in this report, the “I I/3 IV V” chord progression in TOL is featured in the Chorus in the classic song “Get Off of My Cloud” by The Rolling Stones released in 1965, eight years before LGIO RP. In fact, this “I I/3 IV V” chord progression in “Get Off of My Cloud” is more similar to the chord progressions in TOL than between the chord progressions between TOL and LGIO RP. Thus, (1) “Get Off of My Cloud” includes a chord progression that is more similar to the chord progressions in TOL than between the chord progressions in LGIO RP and TOL *and* (2) twelve songs that predate LGIO RP are more similar to the chord progression in LGIO RP than between the chord progressions in LGIO RP and TOL.

127. The insignificant harmonic similarity between LGIO RP and TOL is found in the Verses, Choruses, and Outro in LGIO RP and in the Verses, Interlude, and the first 8 bars of the Choruses in TOL. The last two bars of the 10-bar Choruses in TOL feature the following chord progression.

	<u>Bar 9</u>		<u>Bar 10</u>
TOL:	vi V IV I/3		ii7 V I

This chord progression in bars 9 and 10 in the Choruses in TOL charted immediately above is substantially different from any chord progression in LGIO RP.

128. In summary, on the basis of my analysis, I found that there are no significant harmonic similarities between LGIO RP and TOL, but there are harmonic differences. The basic “I iii IV V” chord progression was in common use prior to LGIO RP. Moreover, there are similarities and differences between the chord progressions in TOL and LGIO RP. The fact that the common chord progressions are in the same harmonic rhythm in some portions of LGIO RP and TOL is not significant.

The Chords in the Bridge Sections in LGIO RP and TOL Are Different

129. As explained in paragraphs 45-46 above, I disagree with Dr. Stewart’s labeling of the sections starting at 0:48 and 2:32 of TOL as the “bridge/pre-chorus”. Generally, the section between the Verse and the Chorus that prepares the listener for the Chorus is called the “Pre-chorus.” On the other hand, I agree that there are two Bridge sections in LGIO RP. Thus, when Dr. Stewart references the “Bridge” sections in TOL on page 12 of the Stewart report, in my opinion he is referring to the Pre-chorus sections in TOL. Within that context, on page 12 of the Stewart report, Dr. Stewart finds:

“The opening chords of the bridges are closely related (E minor7 or ii7 in TOL and G major or G7 or IV in LGIO).” [p. 11, the Stewart report]

130. Thus, Dr. Stewart is merely comparing *one* chord in the Bridge sections, which he concedes is not the same. Dr. Stewart opines “the ‘ii’ and ‘IV’ chords are considered practically interchangeable.” [Footnote 8, p. 12, the Stewart report] However, while a “ii” chord can be a “substitute chord” for a “IV” chord, a “ii” chord is not the same as a “IV” chord.

131. More importantly, the Stewart report fails to analyze the chord *progressions* in the Bridge sections beyond *the first chord* in each song’s Bridge. In fact, the chord progressions in the “bridges” in LGIO RP and TOL are very different, as charted below. Insofar as what Dr. Stewart labels the “Bridge” in TOL is a total of 8 bars, the chords in the first 8 bars in the “Bridge” in LGIO RP are placed over the chords in the 8-bar “Bridge” (as labeled by Dr. Stewart) in TOL.

	<u>Bar 1</u>	<u>Bar 2</u>	<u>Bar 3</u>	<u>Bar 4</u>	<u>Bar 5</u>	<u>Bar 6</u>	<u>Bar 7</u>	<u>Bar 8</u>
LGIO RP:	IV	IV	I iii	IV I7	IV	IV	I iii	IV V7
TOL:	ii7 IV6	V7 I	ii7 IV6 V		ii7 IV6 V vi	ii7 IV6 V7		

132. Every single chord is different. In addition to the demonstrably different chord progressions in these sections from LGIO RP and TOL, the harmonic rhythm (*i.e.*, the rate of change in the chords) is different. Thus, Dr. Stewart merely alleges a non-existent similarity in a single chord that (1) is not the same chord in TOL and LGIO RP, (2) is different in harmonic rhythm in TOL and LGIO RP (because that first chord in TOL has a duration of 3 beats while the first chord in LGIO RP has a duration of 8 beats, more than two times longer than the first chord in TOL), and (3) is merely the first chord in very different overall chord progressions in LGIO RP and TOL.

133. In summary, the chord progressions in these sections of TOL and LGIO RP are significantly different. There are no significant similarities. Dr. Stewart's inclusion of this claimed "similarity" show his overreach to create a purported combination of similarities between TOL and LGIO RP.

The Modal Qualities in LGIO RP and TOL Are Different

134. The vocal melody in TOL is diatonic (*i.e.*, based on the notes in the major scale), while the vocal melody in LGIO RP contains several flatted thirds, which are outside of the major scale. Flatted thirds, which are clearly present in the vocal melody in LGIO RP but not in the vocal melody in TOL, are associated with the blues scale. In his June 2015 report (attached as **Visual Exhibit H**), Dr. Stewart finds that LGIO RP "has a bluesier and more soulful vocal" than TOL. [p. 11, the June 2015 Stewart report] In his December 8, 2017 report (*i.e.*, the Stewart report), he is not so definitive but he still concedes: "LGIO [RP] may have a somewhat more blues inflected vocal..." [p. 12, the Stewart report]

135. Also on page 12 of the Stewart report, Dr. Stewart notes that the vocal melodies in LGIO RP and TOL contain “inflections” and “bent” notes. While the commonplace use of vocal “inflections” and “bent” notes is in the vocal melodies in LGIO RP and TOL, the fully flatted thirds sung by Marvin Gaye are *not* subtle vocal “inflections” but actual notes in the melody. These flatted thirds are *not* sung by Ed Sheeran in TOL. My analysis is supported by the fact that there are no occurrences of a flatted scale degree “3” in the TOL published sheet music (see **Visual Exhibit C**). The vocal melody in TOL is diatonic and does not include a flatted scale degree “3”.

136. In the midst of the same paragraph on page 12 of the Stewart report in which he is discussing the *vocal melodies* in LGIO RP and TOL Dr. Stewart writes:

The sheet music to TOL contains blue thirds as can be seen in measures 36, 39, 40 (notated as e-sharps). [p. 12, the Stewart report]

This could suggest to a reader that the *vocal melody* in TOL “contains blue thirds” notated as fully flatted thirds. Dr. Stewart fails to disclose that the three flatted thirds he identifies in the published sheet music to TOL (1) are *not* in the vocal melody, *i.e.*, they are not sung by Ed Sheeran, (2) are played on the guitar, (3) are notated as grace (miniature) notes, and (4) due to their brevity do not remotely create the “bluesier and more soulful vocal” melody Dr. Stewart concedes (on page 11 of his June 2015 report) is in LGIO RP as compared with the vocal melody in TOL.

137. In summary, as conceded earlier by Dr. Stewart, the modal quality in the vocal melody in LGIO RP is “bluesier” than the vocal melody in TOL. While the vocal melody in LGIO RP includes flatted thirds, the vocal melody in TOL does not. Further, the exceedingly brief grace notes in the guitar in the Interlude section in TOL identified by Dr. Stewart do not remotely create the modal and “bluesier” quality created by Marvin Gaye’s vocal melody in LGIO RP.

The Lyrics in LGIO RP and TOL Are Different

138. In his analysis of the lyrics on pages 12-13 of the Stewart report, Dr. Stewart concedes that he has “found few important lyrical similarities” between LGIO RP and TOL. [p. 12, the Stewart report] Also in his brief analysis, Dr. Stewart notes:

“In the end, both ballads are celebrations of love to a particular woman.” The main difference would be, then, that the attraction in TOL seems to have been consummated while the singer in LGIO [RP] is still yearning for fulfillment.” [p. 13, the Stewart report]

139. Ballads being “celebrations of love to a particular woman” is an idea that would apply to countless songs and does not support a claim of copying. There are no significant similarities in lyrical expression of this generic idea.

140. In summary, the Stewart report does not present any significant similarities in lyrical expression in LGIO RP and TOL. The similarity as presented in the Stewart report points to an idea that has been used in countless songs and does not support a claim of copying.

Prior Art Demonstrates that Similarities between LGIO RP and TOL Were in Use Prior to LGIO RP

141. On pages 13 – 15 of the Stewart report, Dr. Stewart discusses “prior art” listed in my March “DRAFT” summary outline.

“Dr. Ferrara’s undated report mentions ten songs that he claims pre-date LGIO [RP] that contain similar harmony. As outlined above, the similarities in LGIO [RP] and TOL are found in much more than just the harmony. In my preliminary investigation I have examined all of these works and found none that contain the bass line and drum part at issue in this matter (much less the other expression described in this report).” [p. 13, the Stewart report]

142. First, Dr. Stewart does *not* mention the harmonic similarities I found between the prior art works listed and discussed on pages 3-4 in my “DRAFT” summary outline. Thus, he fails to rebut the harmonic similarities in the prior art listed and discussed in my “DRAFT” outline summary. Those ten prior art works demonstrate that the chord progression at issue was in common use before 1973 in LGIO RP. Further, thirteen prior art works and two student guitar method books presented above demonstrate that the substance of the harmonic similarities Dr. Stewart finds between LGIO RP and TOL was in common use prior to LGIO RP and widely available, including in student guitar method books, prior to the creation of TOL.

143. Second, in its purported analysis of the “bass line” in TOL, the Stewart report fails to analyze or transcribe the **bass** guitar line in TOL; the Stewart report delimits its analysis to the lowest notes in the *guitar part*. By way of self-contradiction, while the Stewart report uses the **bass** guitar line in its analysis of LGIO RP, it omits an analysis or transcription of the **bass** guitar line in its analysis of TOL even though the **bass** guitar line *is* the “bass line” from 0:24 – 4:42, which is almost the entirety of TOL. The reason for Dr. Stewart’s omission is obvious: as demonstrated above, the actual “bass line” in almost the entirety of TOL has many differences with the “bass line” in LGIO RP. Moreover, the drums do not play with the guitar at the opening of TOL. Thus, any suggestion of a *combination* of the “bass line” in the opening guitar part of TOL and the drum pattern fails because, from the first entrance of the drums in TOL until the end of TOL, the **bass** guitar line is also present and the **bass** guitar line *is* the “bass line” of the song. Dr. Stewart cannot circumvent the fact that the **bass** guitar line in TOL (which *is* the “bass line” starting at 24 seconds and through to the end of TOL) has many differences with the bass guitar line in LGIO RP, differences that are omitted throughout the Stewart report.

144. Indeed, as demonstrated above and in the transcription of the **bass** guitar line at 1:13 in TOL on page 5 of my “DRAFT” summary outline (which Dr. Stewart tellingly chose to ignore and *omit* from his Report), the bass lines in LGIO RP and in almost the entirety of TOL are different and any similarities are fragmentary and insignificant.

145. In summary, the Stewart report (1) fails to rebut the presence of the chord progression at issue in LGIO RP in the numerous prior art works in my “DRAFT” outline summary (with additional prior art works presented above), (2) fails to establish any significant similarity in the **bass** guitar “bass line” in LGIO RP and the opening guitar “bass line” in TOL, and (3) fails to transcribe, let alone analyze, the actual “bass line” (which is in the **bass** guitar line) starting at 24 seconds and continuing to the end of TOL at 4:42.

The Stewart Report’s “Bass Line Characteristics” Omit Any Analysis of the Bass Guitar Line in TOL and Point to Insignificant Similarities

146. On page 13 of the Stewart report, Dr. Stewart presents five “bass line characteristics” he finds in common between the **bass** guitar line in LGIO RP and the guitar line (*not* the **bass** guitar line) in TOL as follows.

“1 3 4 5
two-measures
descending sixth
anticipation of 3 and 5
syncopation” [p. 13, the Stewart report]

147. First, while it is acceptable to present the basic bass movement on scale degrees “1 3 4 5”, the bass line in LGIO RP *as transcribed in Example 1 in the Stewart report* (see page 4 therein) actually consists of the following scale degrees.

LGIO RP **bass** guitar line: 1 3 3 4 5 5 5 6

By way of difference, the lowest notes in the guitar line at the opening of TOL as transcribed in Example 1 in the Stewart report consist of the following scale degrees.

TOL lowest notes in the guitar line: 1 3 4 5 5

A comparative chart of the **bass** guitar line in LGIO RP and the lowest notes in the guitar line in TOL *as transcribed in the Stewart report* is immediately below.

LGIO RP **bass** guitar line: 1 3 3 4 5 5 5 6

TOL lowest notes in the guitar line: 1 3 4 5 5

Thus, while it is acceptable to identify the *basic* movement from scale degrees 1 3 4 5, it is also necessary in a full report to present an analysis of the full order of the pitches and the melodic rhythms to which those pitches are set. Such an analysis evidences differences. In conclusory fashion, the Stewart report merely labels differences in the order of pitches and in the melodic rhythms as “slight embellishments or ‘fills’.” [p. 4, the Stewart report]

148. Second, the “anticipation of 3 and 5” causes and, functionally, is the “syncopation” in the bass lines. Therefore, Dr. Stewart’s fourth and fifth “bass line characteristics” point to the same characteristic and are redundant.

149. Third, Dr. Stewart fails to analyze the actual bass line (in the **bass** guitar) in almost the entirety of TOL, which undermines his third characteristic, namely, a “descending sixth”, because the **bass** guitar line in TOL does not include the “descending sixth”. Rather, the **bass** guitar line in TOL moves in the opposite direction with an ascending third.

150. Fourth, while the Stewart report cites my “DRAFT” summary outline completed in March 2015 it fails to discuss my transcription therein of the first four bars of the **bass** guitar line in LGIO RP and of the **bass** guitar line in the Chorus of TOL. The comparative transcription of those **bass** guitar lines in LGIO RP and TOL is presented in Musical Example 3 earlier in this report and for convenience, immediately below.

151. On pages 20-21 above, my analysis demonstrates eighteen *differences* between the “bass lines” in LGIO RP and the Chorus in TOL as transcribed in Musical Example 3, copied immediately below. As demonstrated in Musical Example 3, there is no “descending sixth” in the “bass line” in the Chorus in TOL. Indeed, the bass line from 0:24 through to the end of TOL at 4:42 *never* descends a sixth.

MUSICAL EXAMPLE 3 (from page 20 above)

LGIO RP / TOL

Comparative transcription of the bass guitar parts in the key of D major

TOL starting at 1:13

The image displays two staves of musical notation in bass clef, 4/4 time, and the key of D major (two sharps). The top staff is labeled '"Let's Get It On" 0:01' and shows a bass line starting with a dotted quarter note on D2, followed by quarter notes on E2, F#2, G2, A2, B2, and C3. The bottom staff is labeled '"Thinking Out Loud" 1:13' and shows a bass line starting with a dotted quarter note on D2, followed by quarter notes on E2, F#2, G2, and A2. Below these two staves, there is a section of notation with a '3' above it, which appears to be a continuation or comparison of the two bass lines, showing the first two staves again.

152. Thus, the combination of five “bass line characteristics” purportedly “in common between LGIO [RP] and TOL (in guitar)” are not significant because:

- The first “bass line characteristic” (“1 3 4 5”) omits many differences in the actual order of the pitches as transcribed in Example 1 on page 4 of the Stewart report and charted in paragraph 147 above;
- The third “bass line characteristic” (“descending sixth”) is never present in the “base line” in almost the entirety of TOL, which is evidenced in the **bass** guitar line omitted in the Stewart report; and
- The fourth and fifth “bass line characteristics” (“anticipation of 3 and 5” and “syncopation”) are redundant.

Prior Art Further Undermine Any Finding of Significance Regarding “Bass Line Characteristics” in LGIO RP and TOL

153. First, the lowest notes in the guitar line are the “bass line” only during the first 24 seconds of TOL. A proper analysis of the **bass** guitar lines in both LGIO RP and TOL (not just in LGIO RP) objectively demonstrates that the bass lines in LGIO RP and almost the entirety of TOL are different and any similarity is insignificant. Dr. Stewart’s “bass line characteristics” omit the “bass line” in almost the entirety of TOL.

154. Second, the following prior art works further undermine any finding of significance regarding similarities between the **bass** guitar line in LGIO RP and the lowest notes in the guitar line during the opening of TOL. As transcribed in Musical Example 5 below, “Georgy Girl” recorded by the 101 Strings Orchestra (1967) includes the five “bass line characteristics” listed on page 13 of the Stewart report as well as the “I iii IV V” chord progression in LGIO RP.

- (a) 1 3 4 5
- (b) two measures
- (c) descending sixth
- (d) anticipation of 3 but not 5
- (e) syncopation of 3 but not 5 (and anticipation in harmonic rhythm)

MUSICAL EXAMPLE 5

“Georgy Girl”

(101 Strings Orchestra, 1967)

At 0:28

D F#m G A

155. In addition, as demonstrated in Musical Examples 6-11 below, the following six prior art works embody similar **bass** guitar lines and chord progressions using the list of “bass line characteristics” in the Stewart report as detailed below:

- (a) The basic “I iii IV V” chord progression (with anticipation of “iii” and “V” harmonic rhythm in “True Love Ways”);
- (b) The basic “1 3 4 5” scale degree movement;
- (c) In two measures; and
- (d) With a descending sixth.

MUSICAL EXAMPLE 6

“True Love Ways”

(Buddy Holly, 1960)

At 0:03

Musical notation for Musical Example 6, showing a bass line in 4/4 time. The key signature is one sharp (F#). The notation includes a treble clef, a 4/4 time signature, and a key signature of one sharp (F#). The bass line consists of a descending sixth interval (D4 to F#3) in the first measure, followed by a half note G3 in the second measure, a half note A3 in the third measure, and a half note B3 in the fourth measure. Above the staff, the chords D, F#m, G, and A are indicated. A small diagram above the first measure shows a descending sixth interval (D4 to F#3) with a brace and a '3' above it, indicating a triplet or a specific interval.

MUSICAL EXAMPLE 7

“Last One to Know”

(The Fleetwoods, 1961)

At 0:00

Musical notation for Musical Example 7, showing a bass line in 4/4 time. The key signature is one sharp (F#). The notation includes a treble clef, a 4/4 time signature, and a key signature of one sharp (F#). The bass line consists of a half note D4 in the first measure, a half note F#3 in the second measure, a half note G3 in the third measure, and a half note A3 in the fourth measure. Above the staff, the chords D, F#m, G, and A are indicated.

MUSICAL EXAMPLE 8

“Once Upon a Dream”

(Billy Fury, 1963)

At 1:05

Musical notation for Musical Example 8, showing a bass line in 4/4 time with a key signature of one sharp (F#). The notation consists of a single staff with a bass clef. Above the staff, the chords D, F#m, G, and A are indicated. The melody starts with a dotted quarter note on D4, followed by an eighth note on E4, a quarter note on F#4, a quarter note on G4, a quarter note on A4, and a quarter note on B4. The piece ends with a double bar line.

MUSICAL EXAMPLE 9

“Fun, Fun, Fun”

(The Beach Boys, 1964)

At 0:37

Musical notation for Musical Example 9, showing a bass line in 4/4 time with a key signature of one sharp (F#). The notation consists of a single staff with a bass clef. Above the staff, the chords D, F#m7, G, and A are indicated. The melody starts with a quarter note on D4, followed by quarter notes on E4, F#4, G4, A4, B4, and C5. The piece ends with a double bar line.

MUSICAL EXAMPLE 10

“A Summer Song”

(Chad and Jeremy, 1964)

At 0:10

Musical notation for Musical Example 10, showing a bass line in 4/4 time with a key signature of one sharp (F#). The notation consists of a single staff with a bass clef. Above the staff, the chords D, F#m, G, and A are indicated. The melody starts with a dotted quarter note on D4, followed by an eighth note on E4, a quarter note on F#4, a quarter note on G4, a quarter note on A4, and a quarter note on B4. The piece ends with a double bar line.

MUSICAL EXAMPLE 11

“Hurdy Gurdy Man”

(Donovan, 1968)

At 1:05



156. On the other hand, the bass guitar lines in the six prior art works immediately above do not include the “syncopation” caused by the “anticipation of 3 and 5”. However, this simple rhythmic syncopation is a common in popular music. Moreover, the actual **bass** guitar line in TOL has *two* syncopations in bars 1 and 3 in TOL, but by way of difference in the bass line in LGIO RP, there is only *one* syncopation in bars 1 and 3 as demonstrated in Musical Example 3 presented on page 52 above and earlier in this report.

157. In addition, as transcribed in Musical Example 12 immediately below, The Ventures’ 1967 recording of “Georgy Girl” includes:

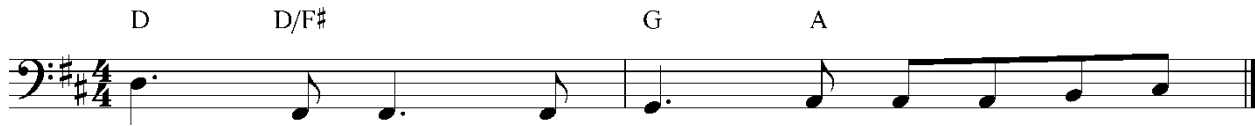
- (a) The basic “I I/3 IV V” chord progression in TOL;
- (b) The basic “1 3 4 5” scale degree movement;
- (c) In two measures;
- (d) With a descending sixth;
- (e) anticipation of 3 and 5; and
- (f) syncopation of 3 and 5 in the harmonic rhythm but not of 5 in the bass.

MUSICAL EXAMPLE 12

"Georgy Girl"

(The Ventures, 1967)

At 0:10



158. Thus, the “bass line” in almost the entirety in TOL does not include the “descending sixth”. Moreover, even if it did, the use of a “descending sixth” in the bass line combined with the chord progression in LGIO RP or TOL was already commonly used in (at least) the **eight** prior art works transcribed above (including two versions of “Georgy Girl”).

159. In addition, the 1964 hit, “Downtown” recorded by Petula Clark, includes the chord progression at issue in LGIO RP and, as is the case in the **bass** guitar line in TOL, i.e., the “bass line” in almost the entirety of TOL, the **bass** guitar line ascends by a third. Thus, like TOL, Petula Clark’s “Downtown” includes:

- (a) The basic “I iii IV V” chord progression in LGIO RP;
- (b) The basic “1 3 4 5” scale degree movement;
- (c) In two measures;
- (d) Anticipation of 3 (but not of 5); and
- (e) Syncopation on 3 (but not on 5).

MUSICAL EXAMPLE 13

“Downtown”

(Petula Clark, 1964)

Time: 2:03



160. As transcribed in Musical Example 14 immediately below, “Six Pack Summer” (2000) by Phil Vassar includes the following harmonic and “bass line” elements (and the drum pattern is similar to that in TOL).

- (a) The basic “I I/3 IV V” chord progression in LGIO RP;
- (b) The basic “1 3 4 5” scale degree movement;
- (c) In two measures;
- (d) Descending sixth;
- (e) Anticipation of 3 and 5; and
- (f) Syncopation in the bass notes on 3 and 5.

MUSICAL EXAMPLE 14**“Six Pack Summer”****(Phil Vassar, 2000)**

At 0:45

The musical notation consists of two staves. The top staff is labeled 'Bass' and is in 4/4 time with a key signature of one sharp (F#). It shows four measures of music. Above the staff, the chords are labeled: D, D/F#, G, and A. The notes are: Measure 1: D4 (quarter), E4 (quarter), F#4 (quarter), G4 (quarter); Measure 2: D4 (quarter), E4 (quarter), F#4 (quarter), G4 (quarter); Measure 3: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter); Measure 4: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter). The bottom staff is labeled 'Drums' and is in 4/4 time. It shows four measures of music. The first two measures have a hi-hat cymbal pattern (marked with 'x') and a kick/bass drum note (marked with 'o') on the first and third beats. The last two measures have a hi-hat cymbal pattern (marked with 'x') and a kick/bass drum note (marked with 'o') on the first and third beats, with a fermata over the final note.

The Similarity in the Drum Patterns in LGIO RP AND TOL Is Insignificant

161. On pages 14 and 15 of the Stewart report, Dr. Stewart includes transcriptions of the drum parts along with the chords and bass parts in some prior art works. First, I don't agree with some of the notation in these transcriptions. Second, as transcribed in Example 2 on page 6 of the Stewart report, there are three differences between the drum patterns in LGIO RP and TOL:

- (a) There is a hi-hat cymbal note (or “attack”) on the second half of beat 1 in bar 1 in TOL, but there is no corresponding hi-hat cymbal note in LGIO RP;
- (b) There is a “kick” or “bass” drum note on beat 4 in bar 1 in LGIO RP, but there is no corresponding kick drum note in TOL; and
- (c) There is a “kick” or “bass” drum note on beat 4 in bar 2 in LGIO RP, but there is no corresponding kick drum note in TOL.

162. As demonstrated earlier in this report, the similarity between the drum patterns in LGIO RP and TOL represents practices that predate LGIO RP. The drum method book, *100 Famous Funk Beats*, includes the drum pattern in James Brown's classic 1965 song “Papa's Got a Brand New Bag”, which is *identical* to the rhythm in the drum pattern in TOL as transcribed in Example 2 on page 6 of the Stewart report.

Moreover, the same drum method book also includes the drum pattern in James Brown's 1964 song "Out of Sight", which is *identical* to the rhythm in the drum pattern in TOL as transcribed in Example 2 of the Stewart report. However, as transcribed in Example 6 in the Stewart report, the drum patterns in LGIO RP and TOL are *not* identical; there are three differences. In another drum method book, *The Drumset Musician*, the *identical* kick drum, snare drum, and hi-hat drum pattern rhythm in TOL is also found in exercise "#8a" on page 12.

163. Within that context, the use of a similar but not identical drum pattern in LGIO RP and TOL is insignificant and does not support a claim that the drum pattern in LGIO RP was copied in TOL.

164. In summary, the Stewart report fails to present any analysis of the composition in the LGIO Deposit Copy. The Stewart report is rife with misleading omissions and self-contradictions. Many purported similarities in the Stewart report are too remote and manufactured to be of any significance, individually or in combination with other similarities. Other similarities between LGIO RP and TOL proffered in the Stewart report represent practices that were common prior to LGIO.

IV. CONCLUSIONS

165. On the basis of my musicological analysis, it is my opinion that the Deposit Copy of LGIO and TOL do not share any significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate. The similarity between these two songs represents expression that was common prior to the copyright of LGIO. The differences between LGIO and TOL far exceed the insignificant similarity between them.

166. The Stewart report fails to present any analysis of the composition in the LGIO Deposit Copy. Instead, the Stewart report analyzes the recorded performances in the "single" and "album" recordings of LGIO RP.

167. With respect to its analysis of LGIO RP and TOL, it is my professional opinion that the Stewart report is rife with misleading omissions and self-contradictions.

Many purported similarities in the Stewart report are too remote and manufactured to be of any significance, individually or in combination with other similarities. Dr. Stewart's findings of purported similarities in the vocal melodies lack any substance and are manufactured to create similarities between fragments of longer melodies wherein no meaningful melodic similarity exists. The remaining similarities represent practices that were common before LGIO RP.

168. On that basis, it is my opinion that there is no musicological evidence to support a claim that TOL infringes the music copyright of the LGIO Deposit Copy or the compositions in the LGIO recorded performances.

Respectfully submitted,

January 12, 2018

By: Lawrence Ferrara, Ph.D.

A handwritten signature in black ink, appearing to read 'Lawrence Ferrara', is written over a horizontal line. The signature is stylized and somewhat obscured by a large, loopy flourish that extends upwards and to the right.

For: Lawrence Ferrara, Inc.

APPENDIX 1

**LAWRENCE FERRARA, Ph.D.
PROFESSOR OF MUSIC
DIRECTOR EMERITUS
NEW YORK UNIVERSITY
THE STEINHARDT SCHOOL
MUSIC AND PERFORMING ARTS PROFESSIONS**

Educational Background

B.A.	Music	Montclair State University
M.M.	Music	Manhattan School of Music
Ph.D.	Music	New York University

Teaching Background

1979-84	Assistant Professor of Music	New York University
1984-92	Associate Professor of Music, Tenured	New York University
'92-present	(Full) Professor of Music	New York University
1995-2006	Professor of Music and Department Chair	New York University
2006-2011	Professor of Music and Director, Music & Perf Arts	New York University
2011 (Sept.)-present	Professor of Music and Director Emeritus	New York University

Selected Professional Activities

- New York: 2017, American Musicological Society GNY, peer-reviewed Keynote presentation regarding Philosophy and Musicology, at New York University (April)
- New York: 2017, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- Cambridge, Mass: 2017, (seventh annual) invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- New York: 2017, American Musicological Society GNY, invited presentation and participation on a panel hosted at Columbia University regarding Leadership in Musicology (January)
- Los Angeles, California 2017, Southwestern Law School Annual Media Law Conference, invited panel member regarding music copyright
- New York: 2016, Loeb & Loeb, Annual IP/Entertainment Law CLE Conference, invited panel member regarding music copyright
- New York: 2016, The Copyright Society of America (NY), invited panel member regarding music copyright
- New York: 2016, American Musicological Society GNY, peer-reviewed presentation regarding Corpus Analysis in musicology
- Cambridge, Mass: 2016, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- New York: 2016, invited lecture on music copyright at Fordham University Law School, class on Advanced Copyright
- Cambridge, Mass: 2015, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

- New York: 2015, American Musicological Society GNY, invited presentation and participation on a panel hosted by The Juilliard School at Lincoln Center regarding Changes in Music Delivery and Reception in the 21st Century
- Cambridge,
Mass: 2014, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- New York: 2014, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- New York: 2014, American Musicological Society GNY, peer-reviewed presentation on musicological issues regarding the composition embodied in a sampled portion of a sound recording in music copyright claims
- New York: 2014, International Double Reed Society Conference, invited presentation on the musicological elements and implications in *Newton v. Diamond*
- Cambridge,
Mass: 2013, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- New York: 2013, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- New York: 2013, American Musicological Society GNY, peer-reviewed presentation including an analysis of the musical composition in “The Phantom Song” from *Phantom of the Opera* by Andrew Lloyd Webber related to *Repp v Webber*
- New York: 2012, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- Cambridge,
Mass: 2012, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- Sweden: 2011, interviewed (in New York) and featured in the Swedish TV series, “The Story Behind the Hit Song,” regarding music copyright

- Cambridge,
Mass: 2011, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- New York: 2010, invited presentation and moderator of a panel on sound recording sampling and music copyright for The Copyright Society of the United States, New York Chapter
- New York: 2010, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- Montclair,
NJ: 2010, invited to give the Inaugural Jack Sacher Memorial Research Lecture (on music analysis in music copyright matters) for the opening of the John Cali School of Music at Montclair State University
- New York: 2010, invited lecture on music copyright followed by a dialogue with Academy Award winner, F. Murray Abraham, for The Pathfinders Series at The First Presbyterian Church of New York City
- New York: 2008, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- Denmark: 2007, interviewed in the documentary film on music copyright, *Copy Good, Copy Bad*
- Ireland: 2007, interviewed on Irish radio regarding music copyright
- New York: 2007, Invited opening and closing lectures for a Conference co-sponsored by The New York Philharmonic and the Finnish Consulate on Music regarding Music Learning and Performance in Finland
- New York: 2006, invited panelist at the CMJ Conference at Lincoln Center regarding music copyright
- New York: 2006, invited panelist at the Remix Conference regarding music copyright
- New York: 2006, invited presentation for the New York Institute for the Humanities regarding music analysis and music copyright

- New York: 2006, invited Keynote Address for The Mastery of Music Teaching Conference sponsored by The Metropolitan Opera Guild and The New York Philharmonic
- Washington
D.C.: 2005, invited panelist/presenter at the Future of Music Policy Summit regarding music copyright and *Newton v Diamond*
- New York: 2005, invited panel and group discussion leader at the United Nations regarding rhythm in the music of multiple cultures as part of the U.N.'s World Summit on the "Information Society" and the United Nations Information and Communications Technology Task Force
- Cambridge,
Mass.: 2005, invited panelist/presenter at Harvard University Law School's Berkman Center in a national conference regarding technology and intellectual property
- New York: 2005, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- Los
Angeles: 2005, invited lecture regarding music analysis and music copyright in Los Angeles for an NYU Alumni event
- Orlando: 2005, invited lecture regarding music copyright and music analysis in Orlando, Florida for an NYU Alumni event
- Hawaii: 2004, invited workshop presentation and session chair regarding the methodology for the analysis of a J. S. Bach organ prelude for the International Conference on Arts and the Humanities
- Norway: 2003, invited series of lectures on music theory and analysis co-sponsored by the Music Theory and Composition Departments of the Norwegian Music Academy, and the Department of Philosophy at the University of Oslo
- New York: 2001, invited presentation and Chair of a panel at The United Nations regarding "Music within a Global Context."

Italy: Summer 1993 & Summer 1994, Visiting Professor at University of Pisa teaching music analysis, performance practices, and philosophy of music

As a pianist, performed solo recitals and as an accompanist in the United States and Europe including on radio and television, recordings released by Orion Master Recordings and Musique international, and performed for musical theatre shows, accompanist to internationally acclaimed singers, and as a session pianist in pop styles.

At New York University's Steinhardt School: Director of Music Performance Programs from 1980-1985, Director of Ph.D. Programs from 1986-1995, Chair of the Department from 1995 – 2011, and Director of all Music and Performing Arts studies (undergraduate through Ph.D.) in The Steinhardt School at New York University from 2006-2011. Named "Director Emeritus" of Steinhardt Music and Performing Arts in 2011. Currently on the full-time faculty in music theory and music history.

Currently a member of the Editorial Board of the journal *Music and Moving Image* (University of Illinois Press) and on the board of Editorial Consultants for the journal *Philosophy of Music Education Review* (Indiana University Press).

Awards

1972	Stoekel Fellowship, Yale University Graduate School of Music, Chamber Music
1985	Presidential Research Fellowship, NYU
1988	Co-PI, Federal Grant for Research
1989	Co-PI, Federal Grant for Research renewed
1996	Daniel E. Griffiths Award for publication regarding the analysis of Arthur Schopenhauer's works on music (Cambridge University Press, 1996).

Membership in Professional Organizations

American Musicological Society

Society for Music Theory

Publications: Books

Ferrara, Lawrence *Philosophy and the Analysis of Music: Bridges to Musical Sound, Form and Reference* (Greenwood Press) 1991

Ferrara, Lawrence and Kathryn E. Ferrara *Keyboard Harmony and Improvisation* (Excelsior Music Publishers) 1986

Phelps, Roger, Lawrence Ferrara and Thomas Goolsby *A Guide to Research in Music Education*, Fourth Edition. (Scarecrow Press/The Rowman & Littlefield Publishing Group) 1993

Phelps, Roger, Lawrence Ferrara, *et al* *A Guide to Research in Music Education*, Fifth Edition (Scarecrow Press/The Rowman & Littlefield Publishing Group) 2005

Courses Taught at NYU

Aesthetic Foundations of the Arts: for Ph.D. students

Aesthetic Inquiry: for Ph.D. students

Arts Heritage and Criticism: for M.M. students

Classic Era Music, Analysis: for M.M. students

Contemporary Music, Analysis: for M.M. and Ph.D. students

Dissertation Proposal Seminar: for Ph.D. students

Keyboard Harmony and Improvisation: for B.M. students

Music Copyright, Landmark Cases: for B.M. students
Music Criticism: for M.M. students
Music History III, 19th Century: for B.M. students
Music History IV, 20th & 21st Century: for B.M. students
Music Performance Practices: for M.M. students
Music Reference & Research Methods: for M.M. and Ph.D. students
Music Theory and Analysis: for B.M. students
Seminar in Music Theory & Analysis: for M.M. and Ph.D. students

Music Copyright

A music expert in music copyright issues for more than twenty years providing opinions for plaintiffs and defendants

An active music copyright consultant for record, music publishing, and motion picture companies, and for individuals in the United States and abroad

A regularly invited guest lecturer in music copyright at Columbia University Law School and Harvard University Law School

A conference panelist sponsored by Harvard Law School, a panel moderator in 2010 and a panel member in 2016 for The Copyright Society of the United States (NY), and a panelist for conferences regarding music copyright at Loeb and Loeb (NY) in 2016 and Southwestern Law School (LA) in January 2017.

Peer-reviewed presentations regarding music copyright for the American Musicological Society (GNY) in 2013, 2014, and 2016.

Deposition or Trial Testimony in the last six years

- (1) Batts et al v. Adams et al in 2011
- (2) Francescatti v. Germanotta et al in 2013
- (3) Marino v. Usher et al in 2013
- (4) Roberts et al v. Gordy et al in 2014
- (5) Roberts et al v. Gordy et al in 2015
- (6) Fahmy v. Shawn Carter et al in 2015
- (7) Copeland v. Bieber et al in 2016
- (8) Skidmore v. Led Zeppelin et al in 2016

Fee rates for Professional Services

- \$395 per hour for research, analysis, preparation of reports, and meetings plus travel-related time and expenses
- \$475 per hour for deposition and trial testimony plus travel-related time and expenses

