

Analysis on the alleged similarities between the songs

Blurred Lines and Got To Give It Up.

D. Pinter, 2015

Preface

In march of 2015 the song Blurred Lines (Robin Thicke & Pharrell Williams feat. T.I.) was judged by a federal court to be substantially similar with Marvin Gaye's song Got To Give It Up that was released in 1977. In a preliminary analysis eight points of similar details were compiled by the GTGIU party's musicologist. These points are not exactly the same as the eight points presented during the trial, but the majority of those were included, and finally convinced the jury about the existence of substantial similarity between the two songs. Beside the eight preliminary points there were several further points presented as well, including points added by a second musicologist of the GTGIU party. The BL party's musicologist has also prepared a detailed counter-analysis focusing on the dissimilarities between the songs and also on the shortcomings of the GTGIU party's points. These points partly coincide with the ones written in this essay. The GTGIU party's musicologist reflected the BL party's declaration detailed. During the trial the BL party could not disprove the GTGIU party's points effectively. This study is browsing through the alleged points of similarities one by one explaining what is true or false from the observed details and the consequences drawn from them. The final consequence is that the vast majority of the GTGIU party's points should not have been accepted for purely musical reasons.

The included musical excerpts use numeric beat-maps of melodic impulses instead of sheet music. It's a visual and easy to understand numeric notation of the music: the higher is the number the higher is the pitch. The 1 means the first degree, for example the C note in the C-Major key („do" in solmization). Exceeding the 7th degree (reaching a higher octave) the numbering returns to 1 with a ' sign added on top right, and similarly a , sign bottom right marks the degrees of a lower octave:

6, 7, 1 2 3 4 5 6 7 1' 2' . . .

The top line of the beat-maps shows the beats looping the 1 to 4 sequence (since these songs are in 4/4 meter) providing a time-scale. The # and b signs that modify the pitch by a half step

up or down respectively, are written *before* the degree, for example #2. While this method does not determine all details of the music, it's easy to follow even for non-musician people.

During the trial the competing parties had to limit to the scope of comparison to the so-called deposite lead sheet of Got To Give It Up, that omits many details of the songs. This study is comparing the recorded form of both songs.

The points of the GTGIU party's preliminary analysis

These are not quoted straight, but rephrased by the author. The points that support the GTGIU party's claim will be labelled as „*pro*”.

1) "and that's why..." vs. "I used to go out to parties"

The two melodies surrounded by other samples to compare:

1 . 2 . 3 . 4 . 1 . 2 . 3 . 4	- beats
555 5 5 6 1' 1'	- Man In The Mirror (pre-chorus)
3 5, 6, 1 2 3 2 112	- Man In The Mirror (chorus)
<hr/>	
5 5 5 5 6 1' 2' 1' 5 6	- Got To Give It Up - "I used to go..."
3 3#2 3 5 6 1' 1' 1' 54b33	- Blurred Lines - "and that's why..."
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3#2 3 5, 6, 1	- You Can Leave Your Hat On
5 5 6 1' 6 1' 6 1' 1'	- He Is So Fine
5 5 6 1' 6 1' 1'	- My Sweet Lord
5, 5, 5, 5, 5, 2 2b21 7,	- I Wanna Be You Man (chorus)
5 5 5 3 6 6 6 5 3' 3' 3' 1'	- Beethoven's 5th (minor)

Pro: both patterns start with repeated notes then rise up for the opening downbeat of the next section.

Contra: There are no matching notes, except one single note in the melisma ending that an ordinary lay listener doesn't even notices in Blurred Lines without directing his or her attention closely to it.

Contra: the Blurred Lines phrase is bridging between the end of the verse and the beginning of the chorus. The Got To Give It Up sample belongs to the verse being its first melodic phrase.

Pro: Both patterns' rhythm starts on the first off-beat of the bar with a series of quavers.

Contra: The pointed out identical part of the rhythm pattern is commonplace. The subsequent "special" part is completely different.

Contra: The Got To Give It Up sample is backed with the tonic chord. The Blurred Lines sample is backed with the dominant chord changing to tonic for the downbeat.

Pro: The 5-6-1 melodic pattern appears in both sample.

Contra: The pattern in the two songs are timed with 1/8 shift compared one to another, decreasing this similarity much, since the on-beat and off-beat emphases are shifted oppositely.

Contra: According to the common practice plagiarism needs some exactly copied notes, preferably consecutive ones. Some subtly similar details are good for proving inspiration at best.

Contra: This pattern is commonplace (as being pentatonic scale fragment) See following examples (beat-degree maps above):

1) You Can Leave Your Hat On (Joe Cocker 1986, Randy Newman 1972) – main hook
Not counting an octave shift in the middle, **six consecutive** matching notes with the Blurred Lines sample including the special #2 degree. The intrinsic similarity is far from striking.

2) He Is So Fine sample (The Chiffons, 1963) vs. „I used to go...” phrase:

Similar rhythm and four (2x2 consecutive) perfectly matching notes. Compare this with „I used to go...” vs. „and that’s why...” with similar rhythm but zero perfectly matching note. Also note that He Is So Fine vs. „and that’s why...” samples share **identic** rhythms and **two consecutive** matching notes on the downbeat.

3) My Sweet Lord (George Harrison, 1971).

This song had a case of plagiarism with the aforementioned He Is So Fine. This sample shows **four consecutive** matching notes with „I used to go...”, but the phrase starts one quarter-beat later.

4) Man In The Mirror (Michael Jackson, 1988) vs. „I used to go...”.

This is not prior art to Got To Give It Up. Compared with the pre-chorus sample almost identic are the rhythms and melody contours. Here occur **5-6 consecutive** notes matching (in identic placement). The melody of the *chorus* also shows **four consecutive** coinciding notes, yet not turning the melodies reminiscent to eachother. Compare these with the zero matching with „and that’s why...”.

Finally an example that does not contain the 5-6-1 melodic pattern, but shows (at least) five similarities with the „I used to go...” phrase:

Beethoven’s 5th symphony (main motif after the „intro”).

It’s in minor (*aeolian*) mode, that is „neighbour” mode of the *dorian* that is heavily present in Got To Give It Up. Similarly to „I used to go out...”. It also starts on the first off-beat of the bar (1) with a series of repeated notes (2) on the 5th degree (3), for the end it rises up to 1st degree (4 – without the melisma though) with an „overrun” before the closing note (5). These five common details do not turn the two samples substantially similar. It seems that **the constellation of simultaneously occurring coinciding details do not necessarily establish substantial similarity**. Not even locally. Especially not if there are no **identic** or almost identic melodic fragments among the similar details.

In her testimony the GTGIU party’s musicologist found the similarity between „I used to...” and „and that’s why” phrases to be *stunning* and *highly unusual* for similarly subtle reasons to what we’ve seen in the above Beethoven example.

The best match was occurring between Man In The Mirror sample and „I used to go...”. This is already a *remarkable* coincidence, but still not *highly unusual*. Considering the simple pentatonic melodic contour and the frequently occurring start on the first off-beat of the bar it’s just a question of time to find examples with almost identic matching even in prior art (before 1977).

The best match with Blurred Lines occurred in You Can Leave Your Hat On, that is originally predates (1972) GTGIU.

The level of *stunning* and *highly unusual* similarity between two melody samples start around 6-8 consecutive matching notes (dominated by perfect ones), and not around 3-5 subtly similar details.

Contra: Note that the melody of the „and that’s why...” phrase is much more unique since the first notes (#2nd and 3rd degrees) of the phrase are not presented in the underlying chord’s triad (the dominant chord, 5th, 7th and 2nd degrees of the homekey). For this reason it’s much harder to find a closely similar sample with this than with „I used to go out...”.

2) "take a good girl" vs. "keep on dancin"

The compared samples and similar samples.

1	.	2	.	3	.	4	.	1	.	2	.	3	.	4	
				6	1'	1'		1'							- Blurred Lines - "take a good girl"
			6	1'	2'			1'							- Got To Give It Up - "keep on dancing"
				5	6	1	2'	3	2'	1'		6			- Jive Talk (middle chorus)
			1	1	1	4					3				- You Should Be Dancing (degrees of minor key)
			5	7		2'				1'					- Louis Armstrong: Mack The Knife (grow-out variant motif - shuffle beat)

Pro: On the GTGIU party's sheet music excerpt the two patterns **optically** look to be almost identical.

Contra: In fact **none** of the notes match perfectly. Among identically pitched notes we can find two-three close matchings. Provided we had four consecutive perfectly matching notes, it would be still insufficient for proving plagiarism. To avoid the aforementioned „optical illusion” of the sheet music, only evenly timed sheet music ought to be enabled, and vertically synchronized samples for the precise comparison. The hereby used beat-maps also fulfill these simple requirements.

Frequent melodic shape is that following the upbeat notes the melody drops back one step next to the downbeat as a kind of resolution. Certainly "take a good girl" is not of this kind, while "keep on dancing" is. More examples for this:

Beatles: And I Love Her („dark is the sky”)

Bee Gees: You Should Be Dancing (title phrase), Jive Talk (title phrase)

Jennifer Rush: The Power Of Love (chorus)

Peter Gabriel: Sledge Hammer (second verse)

Mariah Carey: Hero (title phrase)

You Should Be Dancing was a hit in 1976 just a few months before the recording of Got To Give It Up in december 1976. Closer similarity occurs at the closing two syllables, where also the lyrics are identic (one word: „dancin' ”). Considering the genre, year of the release, the lyrics, and the source being a wellknown hit tune all make the inspiration is very probable, which is still way too insufficient to establish substantial similarity on song-level.

Another Bee Gees song (Jive Talk, 1975) shows closer similarity with the Blurred Lines sample, but also with Got To Give It Up sample especially when omitting the melisma notes (*marked with italic*). This similarity is no less „substantial” than in the case of „keep on dancin” vs. „take a good girl”.

3) Backing vocal harmonies in "keep on dancin" vs "take a good girl".

"Keep on dancin" phrase is harmonized in parallel fourths throughout. This is relatively unusual (this still means huge amount of examples).

"take a good girl": first two syllables are sung with no harmony, then closing two syllables are sung in four part tight harmony with bending up. This is a point of **difference** rather than a similarity.

The matching pitches pointed out in the GTGIU party's analysis, are a result of the tonic chord's 1-3-5 degrees being used in "good girl" - the most commonplace triad possible.

This point was not considered on the trial since it was not included in the deposit sheet of Got To Give It Up.

4) „dancin lady” vs. „if you can't hear” (and ”okay now he was close”)

Among all melodic similarities this one is the closest. GTGIU party's expert testified, that the musical material was copied here: „...the same notes, the same rhythm, they are just... the same". Let's see what's true of this:

1 . 2 . 3 . 4 . 1 . 2 . 3	- beats
1 1 7, 1	- Honey, Honey (title words)
3 3#2 3	- "dancin' lady"
3#2 3 3	- "if you can't hear"
3 3#2 3#2 3	- "Okay now he was close"
#2 3 3#2 3 3	- Working In A Coalmine
3#2 3 1'	- Stupid Cupid (title words)
#2 3#2 3	- Alexander's Ragtime Band (swing-beat)

Matching ratio between „dancin lady” and „if you can’t hear” is 1/4. On the other hand the half-step motif is **possibly** a sign of inspiration since the #2 degree is indeed a relatively infrequent feature of lead melody lines in modern pop-music. In the majority of examples this degree is surrounded with 3rd degrees. (example: Edith Piaf: Mylord, 1959, Beatles: When I’m 64, 1967).

Pro: The GTGIU party’s preliminary analysis points out retrograde (reversed) relation between the patterns.

Contra: rhythm is not identical in either straight or in reversed view.

Contra: the point of oscillation falls **on-beat** in Got To Give It Up, **off-beat** in Blurred Lines. A substantial difference.

Contra: retrograde relation is a lightweight and subtle point of similarity, especially if the rhythm doesn’t match perfectly and the on/off beat timing is different.

Pro: the „Okay now...” phrase also contains halfstep down and up motif similarly to „dancin lady”.

Contra: the "dancing lady" melodic shape with with the same placement is known from prior art: for example Honey, Honey (Abba, 1974). In this particular example the starting degree is different, the rhythm (including timing) is identical, intervals of leaps are identical. This similarity is definitely closer than „dancin lady” vs. „if you can’t hear” and also „dancin lady” vs. „okay now...”.

Contra: Note that the Honey, Honey sample **sounds identical** with „dancin lady” when played on a keyboard without any accompaniment and started from the same note.

Contra: The „if you can’t hear” pattern shows a 3/4 matching ratio with the title melody of Stupid Cupid (Mandy Moore, 1958), which is a very improbable source of inspiration, on the other hand the jumping up note on the „doMESticate” syllable also resonates with „stupid cuPID”. Is this an accidental constellation of simultaneously occurring similar details? Also note the coincidence of the „hey-hey” lyrics. The BL party’s musicologist brought up an even closer prior art sample from Working In A Coal Mine (Lee Dorsey, 1966), with 4-5 consecutive matching notes with „Okay now...”, moreover Alexander’s Ragtime Band (Irving Berlin, 1911) also shows three consecutive matching notes with BL patterns.

Pro: GTGIU party’s expert argued on the trial that the two samples were mainly the same regarding the notes and rhythm.

More precisely: in the case of "dancing lady" and "if you can't hear" share the same two degrees indeed, one of these (#2) being relatively unique. As for the rhythm: in the case of "dancing lady" vs. "if you can't hear" phrases similar rhythms are used with 3/4 matching ratio. The matching part has basic pattern.

Contra: the GTGIU sample is a hook that occurs in the coda section of the song, while the BL sample is a lead vocal phrase that opens the verses.

Since the „dancing lady” hook phrase was not included in the deposit sheet, this point was not considered on the trial.

5) „hey hey hey” vs. „dancin lady” and „move it up”

1 . 2 . 3 . 4 . 1 . 2 . 3	- beats
3 3#2 3	- "dancin' lady"
3 4 5	- "hey hey hey" (GTGIU party's transcription: 4 > #4 > 5)
b7b7 1	- "move it up" / „turn it 'round"

(GTGIU party's transcription: b7>7>1)

The matching ratio between „dancing lady” and "hey-hey-hey" is zero rhythmically (consequently also melodically), thus the GTGIU party’s expert focuses on the exclusive use of half-step leaps. The correct transcription reveals, that "hey-hey-hey" is not even chromatic but normal **diatonic**. The last note is occasionally sung slightly flat making the sample sound like 3 > 4> b5. But even if it would be chromatic... the Got To Give It Up pattern oscillates, while the Blurred Lines pattern ascends. Big difference.

Second musicologist of the GTGIU party also used **inaccurate** transcription taken from the deposit lead sheet, that made her observe yet another non-existing chromatic line in Got To Give It Up, that she paralleled with the other non-existing chromatic line in Blurred Lines. Double fault.

Since „dancing lady” melody was not included in the deposit lead sheet, this point was not considered on the trial.

6) Bassline

Blurred Lines has a bassline of eight bars repeated throughout the song suspended only for the break section. Got To Give It Up has twice as long sections (16 bars), varying its bassline much. The preliminary analysis of the GTGIU party is narrowing down the similarity to the first four bars of the intro, moreover the closing bass figure in the 8th bar.

The comparative test below is done between the first and second eight measures. The 7 the below excerpts means flat-7th degree, while #7 means natural (Major) 7th degree.

1	.	2	.	3	.	4	.	1	.	2	.	3	.	4	.	1	.	2	.	3	.	4	.	1	-	beats
1				<u>Z</u> ,	<u>Z</u> ,			<u>Z</u> ,	<u>1</u>					<u>7</u> ,	<u>1</u>											- GTGIU bar 1-4
				<u>7</u> ,	<u>1</u>			1	<u>7</u> ,	<u>7</u> ,	1			1	<u>7</u> ,	<u>1</u>				<u>5</u>						- GTGIU bar 9-12
1				1	1			<u>4</u>	1	1				5,	7,	1				1	5,	5,				- BL bar 1-4
1				1	1				1	4,				4,	4,					1						- Cool Cat

1	.	2	.	3	.	4	.	1	.	2	.	3	.	4	.	1	.	2	.	3	.	4	.	1	-	beats
1				7,	1	<u>1</u>		1	7,	7,	1			4	b3	<u>1</u>										- GTGIU bar 5-8
1	1			7,	1	<u>1</u>		1	7,	7,	7# <u>Z</u> ,			1	1	7,	<u>1</u>	<u>5</u>								- GTGIU bar 13-16
5,				5,	5,			5,	5,					5,	5,	5	4,	4	3,	3	2,	2	1			- BL bar 5-8

Contra: Out of twenty five notes of Blurred Lines bass loop merely three are matching with the alleged source. Not even two consecutive notes are matching. This low number is not cheating, it clearly shows the low level of similarity.

Contra: The Got To Give It Up bassline is not repetitive either within a section, or section by section. The ratio of perfect matching between the 1-8 and 9-16 bars of Got To Give It Up (both of which being backed with the tonic chord) is lower than 50%.

Contra: One of the few recurring motifs is how the bassline puts group of notes to the 6-7-8 quavers, while Blurred Line bass repeatedly puts the notes on the 8-1 quavers. Differently timed start and stop.

Pro: The GTGIU party's preliminary analysis writes about the compared samples sharing the same **syncopated** rhythms. Syncopated notes are underlined in the above transcription.

Contra: The Blurred Lines bassline is predominantly **non-syncopated** except **one** single off-beat note on the 4th degree. The bassline of Got To Give It Up is heavily (**eight** syncopated

points in bars 1 to 8) and variantly **syncopated**, not really generic. The „sharing the same syncopated rhythm” statement is exaggerating: the one point of syncopation in Blurred Lines bassline and its placement is matching indeed with Got To Give It Up bar 2 (but not matching with bar 10).

Contra: The excerpt transcriptions are misleading by also matching notes that are differently timed by one quaver.

Contra: The chord change in Blurred Lines after four bars also works against the coincidences. The Got To Give It Up bassline is much less repetitive, includes much more variants with various syncopation patterns. This latter contains low amount of real musical commonplaces, while Blurred Line bassline is dominated by them.

The Got To Give It Up bassline in the sampled sections are dominated by 1st and 7th degrees. The Blurred Lines loop is dominated by 1st and 5th degrees and contains only one 7th degree in transitory position. The 7th degree is sparely used in the lead vocal too.

Pro: The fragmentary design is a point of similarity.

Contra: This is a commonplace detail, see also in Night Fever (Bee Gees), You Sexy Thing (Hot Chocolate), Cool Cat (Queen) for example, and many classical pieces.

Pro: The following bass line samples were declared to be substantially similar motifs by both GTGIU party’s expert:

1	.	2	.	3	.	4	.	1	-	beats
5	5'	4	4'	3	3'	2	2'	1	-	Blurred Lines
		5		4b3		1			-	Got To Give It Up

Pro: both motifs start on 5 and close on 1 degrees the latter falling on the downbeat.

Contra: the evenly rhythimized 5-to-1 scale down motif arriving on the downbeat and backed with the dominant-to-tonic chord change is a frequent, public domain motif in music, especially at the end of a section. Even in double-noted form (5-5-4-4-3-3-2-2-1). (Example: Cascades - Rhythm Of The Rain)

Contra: The „Got To Give It Up” sample is not evenly rhythimized, but syncopated.

Contra: The „Got To Give It Up” sample is not changing the chord, but keeping the tonic.

Contra: The modality is different (3 vs. b3 degree), 2nd degree is missing from Got To Give It Up sample either. Using similar scale degrees doesn't count much in pop music, unless there are non-diatonic ones among them.

Contra: The Blurred Lines sample has a characteristic octave-jumps. Only these commonplace jumps make this commonplace pattern somewhat unique.

Contra: The identic matching is merely one note. The GTGIU party's musicologist counted three and "half" matchings instead of one by focusing only the scale and ignoring the modal difference (3 vs. b3).

Pro: Grouping of notes with incrementing number of notes: 1, then 2, then 2-3 notes.

Contra: The 1-2-2-2... grouping of bass notes is commonplace. Examples: Dream On (Aerosmith), Cool Cat (Queen), many classical pieces.

Considering the five pros and fourteen contras this point of similarity is not substantial.

This not acceptable point was finally not considered by the court since it is not included in the deposit lead sheet of Go To Give It Up.

7) Off-beat keyboard rhythm in bars 1-2.

Pro: The GTGIU party's analysis points out that the voicing of the tonic chord in the two songs is almost (2 out of 3) identical: 1-3-5 degrees in Blurred Line, b7-3-5 in Got To Give It Up.

Contra: The Blurred Lines voicing is the most frequent and usual choice possible. The different voicing of Got To Give It Up chords is a point of **difference**, not a similarity.

The staccatto off-beat keyboard chords that are present in both songs is a public domain feature. See an „ancient“ example for this in Floh Walzer (B-part, a generic feature of polka pieces btw).

Even the interplay with the bass is a commonplace.

8) cowbell and party noise

Both songs feature a cowbell, playing different patterns one to another tough. It easily can be a real sign of inspiration, cannot be proven tough. Since the patterns are different, this is not an expression-related point. The mere use of cowbells massively contributes in the similarity of

„feel” and „vibe” of the two songs, for higher extent than most of the GTGIU party’s points together.

Instead of party-noise in Blurred Lines there is a mix of distinct voices. In Got To Give It Up the noise is blurred.

The lack of guitar: this one also **can** be a weak sign of inspiration, that cannot be proven.

Points that are not included in GTGIU party’s preliminary analysis

A - Chord progressions

The similarity of chord progressions was not pointed out in the GTGIU party’s preliminary analysis but in the declaration of the second expert. Both songs start with I > V progression, which is a very basic and commonly used sequence. Got To Give It Up changes the chords in eighth bars and leaves this simple design driving to other chords while Blurred Lines changes chords in four bars and keeps the vamping throughout, suspended only for the break.

Second expert of the GTGIU party argued that the 8-bar pattern of Blurred Lines is a simplified version of what we can hear in Got To Give It Up, and the latter can substitute the former’s chord progression. See mash-up point below.

B - Lyrics

While lyrics don’t belong to the musical details, we can agree that there does **exist** certain similarity between the lyrical fragments located in both songs break section, quoted below:

"move it up” / „turn it 'round” / „shake it down” in Got To Give It Up

and

„shake around” / „get down” / „get up” in Blurred Lines.

Four single words are matching in a different sequence tough. Even though this type of lyrics can be found in dozens of wellknown songs, this coincidence **can be** a sign of inspiration, but very far from plagiarism.

The thematic paralleling of the two songs’ lyrics is an existing but very subtle common detail.

C - Mash-up

The GTGIU party prepared mashed-up samples combining the two songs in various tricky ways. The deponent (Thicke) had to answer a „name that tune” kind of quiz. He had to find out which song’s bass-line did he hear in the aforementioned combined samples. Provided the deponent would have mixed-up the two basslines that would have been a major win for the Gayes’ party (see similar situation in the *Selle v. Gibb* case).

Pro: A part of the mash-up mixes were working fine.

Contra: At more points the samples suffered from „ear-killing” major-minor clashes.

Contra: Nowadays a good producer can mash-up musical samples that are not even sharing the same chords. Got To Give It Up for example has a remix with $i > VI > iv > i$ chord/bass progression circulate.

Example: Billy Jean (Michael Jackson) mashed up with Get Lucky (Daft Punk featuring Pharrell Williams). There exist huge amount of mash-up mixes.

Pro: Note that not every song-pair can be mashed-up smoothly at all, thus the mash-up is acting as a very loose indicator of similarity. Since most songs have sections of „binaric” length (4-8 16 bars). Provided the chords and tempo are matching, the mash-up trick usually works fine. Considering the number of distant samples that can be mashed-up, such a mix doesn’t prove too much. It often creates a false impression in the listeners of the samples being much closer than they really are.

D - Structure

Blurred Lines:

Intro		Verse AB		Verse CD		Chorus		Chorus	
		Verse EB		Verse CD		Chorus		Chorus	
		Rap		Rap		Break			
		Verse’AB		Chorus		Chorus		Outro	

Blurred Lines starts with two full cycles of verses and choruses. Then comes a double section of rap then one section of break with stripped down arrangement. There are three sharply different variants of the verse.

The songform is usual: the two cycles are followed by a bridge-like section around the 2/3 of the song. Since it's been a frequent concept in pop music for ages, it doesn't make much sense to suggest the influence of any particular song.

The GTGIU party suggested that there is a connection between the parlando section in Got To Give It Up and rap section in Blurred Lines. Since rap sections have been trendy and frequent feature of pop-songs especially since the hip-hop boom of the early 90-ties, it doesn't make sense to suggest the influence of a parlando section from 1977, that doesn't sound rap-like at all.

The songform of Got To Give It Up:

| Intro (Verse I) | Verse I-II | Verse I-II | Verse I-I' -II |
| Break I-II | Verse II | Coda (fade out) |

Got To Give It Up starts with three long verses with no chorus or a section that repeats the lyrics of a previous section. The second half of the verse can arguably be interpreted as bridge. The third Verse is extended in the middle of its second half. The sequence of verses is followed by a break section („turn around”) that is changing the tonal center temporarily. After this one half-verse returns then the repetitive coda („keep on dancin”) closes the song. In terms of songform the two songs are **very** different, but there are more subtle similarities:

- The melody of the verses is varying. Blurred Lines verses are changing more strongly.
- Similarity is the feature of a break section instead of contrasting Bridge.
- Further similarity of the shortened verse recurring after the break. „Shortened” means one verse instead of two in Blurred Lines.

These subtle details a lay listener does not notice.

Brief summary of the points

1) "I used to..." vs. "and thats why..."

Zero identic matching. Similar basic rhythm for start, then different ending. The highlighted matching of the 5-6-1 sequence is irrelevant because the timing is shifted by one eighth.

2) "keep on dancin" vs "take a good girl"

Zero identic matching, subtle similarity.

3) Hook - backup vocals:

Some notes are matching in pitch which is no wonder (the tonic triad) . Both rhythm and design are very different. Irrelevant point.

4) "if you can't hear" vs "dancin lady" hook

Very subtle detail. The melodies nowhere match. The use of #2 degree can be a sign of inspiration.

5) "dancing lady" vs "hey hey hey"

Very different melodies in every aspect. The only similarity was alleged to be the chromatic steps used - which happens to be diatonic on Blurred Lines. The inaccurate transcription made it „chromatic”.

6) Bass line

The only noteworthy point of similarity is the fragmentary style with many staccato notes, but it's a commonplace in motown music. Still it can be a weak sign of inspiration.

The highlighted 5-to-1 motif is very commonplace, and the compared samples are very different both rhythmically and scale-wise. The two songs' bassline have a 3/25 matching ratio, GTGIU party's analysis pushes up this low value by also matching neighbourly timed notes as well.

7) Keyboard chords

Off-beat rhythm and the tone is similar indeed, it can be a sign of probable inspiration. On the other hand it's a generic feature. The voicing of the chords is in fact a point of difference.

8) Cowbell and party-noise.

This cowbell-point can be a real sign of inspiration, but very far from plagiarism.

A - No relevant similarity.

B - Lyrical similarity of the excerpts exist, but only single words. Subtle thematic similarity also exist. Sign of inspiration.

C - Mash-up records donot prove much. Irrelevant.

D - Structure is different. The subtle similarities are generic and irrelevant.

Single line summary point by point:

1) Not acceptable

2) Not acceptable

3) Not acceptable

4) Subtle similarity, subtle sign of inspiration

5) Not acceptable

6) Not acceptable

7) Not acceptable. The mere use of off-beat keyboard is a sign of possible (and probable) inspiration.

8) subtle sign of inspiration

A) Not acceptable

B) Possible sign of inspiration, far from plagiarism.

C) Not acceptable

D) Not acceptable

Omitting the not acceptable points only remain these:

4) Subtle similarity, subtle sign of possible inspiration - idea

7) Sign of possible inspiration - idea

8) Subtle sign of possible inspiration - idea

B) Sign of possible inspiration - idea

Point 4 was not considered by the court since it was not included in the deposit lead sheet.

Overall evaluation:

The twelve initial points (1 to 8, A to D) of the GTGIU party have been filtered by this critical analysis. As a result four mostly subtle signs of possible inspiration remained. None of them is substantial, none of them can be classified as expression, not even together. Not even close to that on song-level. Any of the similar details could bypass the direct inspiration of Got To Give It Up easily. On the other hand for the combination of all acceptable similar details the **inspiration** of Got To Give It Up is hard to bypass. Since the inspiration (consequently the access too) was **admitted**, some of the possible signs of inspiration must be **real**.

Pro: When the access is admitted less evidence is sufficient to prove substantial similarity. This is called *inverse-ratio rule*.

Contra: The „less evidence” does not mean that subtle similarities without matching melodic fragments are sufficient to establish substantial similarity. More recent cases were successfully abusing the inverse-ratio rule.

Pro: Sometimes the combination of commonplace motifs can also result somewhat unique and protectable music (see *Appendix 2*).

Contra: In our case the combination of all similar commonplace details is not reaching the extent of uniqueness that is protectable. Neither locally, nor on song level. See *Appendix 1* example for a song with longer list of similarities with Blurred Lines, still not substantially similar with it.

The level of (probable) *inspiration* is very far from the level of plagiarism. The coinciding details together are definitely sufficient for turning Blurred Lines distantly reminiscent to Got To Give It Up. Some public opinions (most notably an executive for Universal Music Enterprises) were also reporting intrinsic similarity but these were outweighed by counter-opinions saying the two songs not having too much in common.

The ordinary lay listener would be likely unable to recognise most of the subtle similarities unless not highlighting them closely. The allegedly similar highlighted excerpts don't contain two consecutive identic notes (in identic timing). The provoking question: was there any other plagiarism-case known where this number was less than four? **Yes there was**, and it was referred in the Judgment Order. See details in *Appendix 2*.

More examples demonstrate that much more closely similar melodies can be found (to both GTGIU and BL) than what was brought up by the GTGIU party. And even these more closely

similar examples are quantity-wise far from the threshold of infringement. Regarding the consecutive identic notes the two songs mutually are likely not among the closest 10.000 songs of each other, no less. Regarding the overall similar details this number is definitely lower, possibly still dozens of songs. See an example of this in *Appendix 1*.

Special details copied?

Let's make a list of details that are songwriting-wise special or characteristic in the music of **Blurred Lines**:

1. The melodic material.
2. Non-diatonic #2 notes in half-step oscillation.
3. Infrequent occurrence of modal notes b7 and b3.
4. Bent up harmonies with occasionally tight intervals.
5. Repeated melodic motifs shifted up/down by one step after the change of chord.
6. Blue notes in the lead vocal.
7. Falsetto and non-falsetto singing.
8. Fragmentary repetitive bass, with only one off-beat note.
9. Hardly any syncopations used in the lead vocal of the verses and choruses.
10. Echoing vocals one octave lower.
11. Additional vocals
12. Cyclic songform with altered verses and double choruses, rap-bridge, and a section without bass and harmonic backing.
13. Vamping two chord progression.
14. Cowbell.

In the list below *italic* fonts mark the above features that are also present in **Got To Give It Up**.

1. Some distant, subtle similarities - see analysis.
2. *#2 occurs in the coda.*
3. Frequent occurrence of *b7*. Somewhat less frequently occurs the *b3-rd* degree.
4. No bending up harmonies, no 3 or 4 part vocals, no tight vocal harmonies.
5. No shifted melodies.
6. Mostly *falsetto*.
7. No blue notes in the lead vocal.
8. *Fragmentary bass*, but not repetitive, frequent and varying syncopations
9. Full of syncopations and off-beat notes.
10. Not present.
11. *Party noise – distant similarity*
12. No chorus, *the verses are varying*, there is a coda, spoken part instead of rap. „*Turn-around*”-like lyrics. Fade out ending.
13. No vamp, more chords, varying harmonic rhythm.
14. *Also used*

The strongest points that create the impression of overall similarity for the lay listeners are the falsetto singing, the use of cowbell, fragmentary staccato bass and the break section with „get-up” like lyrics. These details are responsible for over 95% of the impression while the melodic similarities are de-minimis. Even the most similar „dancing lady” melody is too short and hardly matching to create a significant feel of overall similarity.

The falsetto singing must be a sign of probable influence, to make the song sound a bit like Marvin Gaye. Since thousands of male singers are also using falsetto, this is not a protectable detail.

For the use of a cowbell there exist lots of examples, still it's rare enough to make one suppose influence here. The same can be said about the use of #2 degree. The songform of Blurred Lines is simple, generic except the differently melodized verses being unusual. The occurrence of a rap-bridge in the second half of the song is commonplace in pop music. The spoken section in Got To Give it Up is not rap-like in terms of rhythm.

Pro: GTGIU party's expert opined that it's improbable that any third party song has all of the observed similarities in similar constellation.

Contra: we can find a set of special features of similarity between most of songs. It's usually improbable to find easily a third party song with **exactly** that constellation of features. See *Appendix 1*

Pro: GTGIU party preliminary analysis concluded that Blurred Lines was not independently composed from Got To Give It Up.

Contra: Any song may inspire another song. This relation means that the latter is not independently composed from the inspiring song. Beatles's song Blackbird (Paul McCartney, 1968) was admittedly inspired by a Bach piece. But analyst could not find much more closely similar features other than the use of contrapuntal lines, which is commonplace feature in music.

Final thoughts:

The most important thing that we should make difference between inspiration and plagiarism. What is the difference between exact copying of notes or sounds, and creating something reminiscent in style. An important point of this paper cited from above: *The level of „stunning” and „highly unusual” coincidences between two melody samples start around 6-8 consecutive matching notes (dominated by perfect ones), and not around 3-5 subtly similar details.* To compile much stronger arguments, than the constellation of 3-5 subtly similar details is not an „overly high bar” requirement at all, in contrary to what GTGIU party expert claimed. If we consider all possible signs of inspirations to be real, they are all related to musical *ideas* instead of the *expression*, thus they are **very far from copyright infringement**.

The GTGIU party’s concept of arguments worked on three levels. For firsts certain **elements** (a rhythm pattern, a chord progression, a melodic contour, etc...) of the samples were declared to be similar or substantially similar. Second step was considering the **samples** to be substantially similar, consequently the point was considered to be proven. The third level: a reasonable set of allegedly proven points got the GTGIU party declare the two **songs** to be substantially similar. Shortcomings of level one:

- Several times subtle or even non-existing similarities were threatened as being substantial. To demonstrate these similarities sometimes misleading sheet music excerpts were applied to vanish the substantial differences of pitches (degrees) and timing (rhythm).

Shortcomings of level two:

- The simultaneously occurring similarities were automatically considered to prove the whole point. This is not an acceptable method of consequence as the example of Beethoven’s 5th also nicely shows. Of course lots of other examples can be shown.
- Even an **identic detail** (eg. rhythm) can’t establish substantial similarity locally without other simultaneously occurring close similarities, preferably identic melodic fragments. Identic melody fragments were not shown, while numerous third party examples prove that requirement of 4-8 (or even more) „perfectly” coinciding notes are not „overly high bar” at all in contrary to what GTGIU party expert declared. They are indeed high bar for Got To Give It Up, due to the low level of melodic similarity with Blurred Lines. Nine consecutive matching notes can be found for example between Another One Bites The Dust (1980) and Blurred Lines (in a melisma motif – see *Appendix 1*). Nine (3+1+5 consecutive) matching notes appear in All About That Bass (2014).

1 . 2 . 3 . 4 . 1 . 2 . 3 - beats
 3 5 3 1 2 1 6,5,3 5 3 2 1 - All About That Bass
 3 5 3 2 1 6, 3 5 3 2 1 - Blurred Lines (second double-Verse)

All of the eleven notes of the Blurred Lines sample appear in All About That Bass. Two of these are mixed up, two additional intervening notes in AATB shorten the durations of two corresponding notes from BL. Here the simple arch shaped pentatonic pattern is not original to Blurred Lines, thus no infringement occurs. The lack of infringement does not mean that Blurred Lines could not possibly inspire All About That Bass. The five consecutive notes of the „I know you want it” phrase also appear in Blank Space („It’ll leave you breathless”), another No1 hit song from 2014 and another possible case of inspiration. These two latter examples also show, that in an extremely narrow circle of songs (2014 US No1 hits) you can find **much** closer melodic similarities than what was observed in comparison with Got To Give It Up.

There is no conceptual problem with level three, except that many of the related points were irrelevant or exaggerated thus insufficient together to establish substantial similarity that reaches the essence of the work. Some of the eight excerpts were very far from being substantially similar especially the 5 to 1 bassline motif, the „hey-hey-hey” points, moreover the point on the vocal harmony arrangement. On the other hand some points could possibly amplify the feel of similarity provided there was a strong melodic matching between the two songs. Without such matching there is almost nothing to amplify here. As the BL party’s expert expressed: „No matter how many times you add zero to zero, the answer is still zero.”

The GTGIU party’s expert in her declaration defines the factors of substantial similarity as:

- 1) Similar series of pitches.
- 2) Similar series of durations within similar pitches.
- 3) Similar rhythmic placement (positioning) within similar series of pitches and durations.

(as written in the Summary Judgment Order of the trial)

These three points don’t require the **simultaneous identity** of each three factors (pitch, duration and placement), only **similarity**. In the case of „and that’s why...” and „I used to go...” phrases it works fine indeed:

1 . 2 . 3 . 4 . 1 . 2 . 3 . 4 : beats
 5 5 5 5 6 1'2' 1'5 6 : original: "I used to go..."
 3#2 3 5 6 1 1 1 5... : similar pitches
 3 3#2 3 5 6 1 1 1 5... : + similar durations/rhythm
 3 3#2 3 5 6 1'1' 1' 54b33 : + similar (shifted) placement => "and that's why..."

This concept is not preceded (?) in the prior practice of songwriting cases. No wonder. Next six examples show how tunes can be transformed into each other along the above three points:

Example 1.

4 . 1 . 2 . 3 . 4 . 1 . 2 . : beats
 3 3 3 3 3 3 2 1 7,2 2 : original: Ob-la-di Ob-la-da (verse)
 3 3 3 2 1 1 2 1 7,1 2 3 2 : similar series of pitches
 3 2 1 1 2 1 7,1 2 3 2 : + similar durations
 3 2 1 1 2 1 7,1 2 3 2 : + similar placement => Magic Flute
 (Papageno's song)

Example 2.

1 . 2 . 3 . 4 . 1 . 2 . 3 . 4 : beats
 5 6 71' 2'3'2' 1'1' : original: Yesterday "all my troubles..."
 5 5 56 1'2'2' 1'5 6 : similar series of pitches
 5 5 5 5 6 1'2' 1'5 6 : + similar durations + similar placements
 => "I used to go..."

Example 3.

1 . 2 . 3 . 4 . 1 . 2 . 3 . 4 : beats
 5 5 5 3 6 6 6 5 3'3'3'1' : original : Beethoven's Fifth Symphony (minor)
 5 5 5 5 6 6 6 1'2' 1'5 6 : similar series of pitches (major)
 5 5 5 5 6 1'2' 1'5 6 : + similar durations + similar placements
 => "I used to go..."

Example 4-5.

1 . 2 . 3 . 4 . 1 . 2 . 3 . 4 : beats
 5 5 6 1'6 1'6 1' 1' : original 1: He Is So Fine
 5 5 6 1'6 1' 1'1'6 5 : original 2: My Sweet Lord („... go with you")
 5 5 5 5 6 1'1'2' 1' 5 6 : similar series of pitches
 5 5 5 5 6 1'2' 1'5 6 : + similar durations + similar placements
 => "I used to go..."

Example 6.

1 . 2 . 3 . 4 . 1 . 2 . 3 . 4 : beats
 56 1 2' 32'1' 6 : original: Jive Talk
 55556 1'2' 1'5 6 : similar series of pitches
 5 5 5 5 6 1'2' 1'5 6 : + similar durations + similar placements
 => "I used to go..."

Already the first point can alter the melody enough to push it to the threshold of (local) substantial similarity. The other two steps may alter the melody to an extent where the similarity is not recognisable anymore for a lay listener. But a close look can make things seem to be bigger. The lay listener may recognise similar set of pitches, and roughly similar melodic contour once we direct their attention close to it. But without strong outer suggestion no lay listener will say that any of the above compared songs resemble to each other. It's clear to see that the three points should not be accepted and applied.

During the trial none of the points of the competing parties were mutually acknowledged to be true or false. This was leading to the situation where the jury had to evaluate all the musicologic arguments pro and contra and eventually decide who is right. It was not an expert decision.

The prior cases of musical plagiarism serve as corpus of practice for later cases. Once the Blurred Lines verdict and the „similarity of either pitch, duration or placement is enough” doctrine gets accepted as a valid reference, thousands of new cases are possibly to come. The mashing up of the categories of **subtle** and **substantial** similarities moreover **inspiration** and **copying** may concern almost any song written ever, including the songs of Marvin Gaye.

Author's note: This study reflects the opinion of its author. The presented opinions are based on reasonable points and examples. The purpose of this study is not to support the BL party, but to provide an objective insight of what is and what is not substantial or unusual similarity in music.

Appendix 1 (the point on the third party song)

We should re-phrase the „third party song” statement this way: can yet another song be found with as many similarities as between the two compared songs? Answer: definitely yes. Dozens.

Following example presents a constellation of ten similar details between Blurred Lines and the Queen song Dancer from 1982:

- 1) The half-step oscillating motif – appears in the guitar solo. Shape is inverted though.
- 2) Both falsetto and non-falsetto singing.
- 3) Stripped down arranged section at around 2/3 part of the song.

4) Antiphonal backing vocals.

5) Verse melody of Dancer also starts on the first off-beat of the bar with the same degree repeated.

6) 4 > #4 > 5 motif appearing in a guitar hook in Dancer. In fact it is 3 > 4 > 5 in Blurred Lines, which is a similar pattern.

7) Mirrored contour of closing bassline (ascending in Dancer, descending in Blurred Lines) at the end of the verse.

8) The notes of the „dance dance dance dance” phrase in Dancer coincide with the on-beat notes of the long melisma in one of the verses of Blurred Lines. This latter melisma happens to contain nine consecutive coinciding notes with Another One Bites The Dust (also by Queen).

```
1 . 2 . 3 . 4 : beats
5 434 313 171 : Blurred Lines
5 4 3 1 : Dancer
45434 313 171 : Another One Bites The Dust (melisma)
```

9) The bass notes falling on the starting beats of the bars of the verses coincide:

```
1 2 3 4 5 6 7 8 : bars
1 1 1 1 5,5,5,5, : in Blurred Lines
1 1 1 1 5,5,5,5, : in Dancer
```

10) A four syllable hook is the core of the chorus.

The constellation of these ten simultaneously occurring similar details is not establishing substantial similarity on song level since there's no close melodic similarity between the two songs that is clearly reflected in the lack of identic melodic fragments. The same thing can be said about Got To Give It Up.

It's just a question of time to find more points and more songs with at least four similar details with Blurred Lines. One can find dozens of further songs with as many similar features as listed above. On the other hand it's improbable to find another third party song that features **all** of these ten points in similar constellation. Just think of comparing two books. First we can create long lists of relatively rare words or phrases appearing in each book. Then we can filter out the ones that appear in both books, say twenty special words and phrases. They probably will not find any other book that contains all these twenty words/phrases (except dictionaries perse).

Appendix 2 (about the referred example)

In the Judgment Order there was a case referred as an example of infringement where a **combination of five individually unprotected elements** were judged to be establishing substantial similarity. Let's check whether its consequence can be adapted to our case.

The title of both plaintiff's and defendant's song was "Love Is A Wonderful Thing". Performer artists were Michael Bolton (1991) and the Isley Brothers (1964). The "core" of the infringement was the title phrase hook in both songs.

. 1 . 2 . 3 . 4 . 1 . 2	: beats
3 2 1 2 6 1 1	: Bolton's tune
3 2 1 2 1 1 1	: Isley Brothers' tune
3 3 3 2 1 1 1	: Isley Brothers' variant (4th) phrase
3 3 2 1 2 1	: Rollin On The River (1969)
3 3 2 1 2 6	: Love Is All Around (1968)

Pro: The lyrics are identic.

Pro: Both plaintiff and defendant melody (first phrase) start with a "long" note on the 3rd degree that is followed by a series of eighths with mostly identic notes. The pattern is seven notes long, six of which is closely matching: the same pitch on the same syllable of the identic lyrics.

Pro: The coinciding lyrics happen to be the title phrase, the main hook of the song.

Contra: There are many songs registered in the US with exactly this title, 85 of these prior to 1964.

Pro: The *possibility* and *probability* of access and the influence had been proven.

Pro: There is a variant phrase in the Isley Brother's chorus that is **rhythmically identic** with the Bolton's version, but only four matching notes occur there, including only two consecutive ones.

Contra: The aforementioned **two** consecutive matching notes is an exceptionally low number among plagiarism cases. No wonder the GTGIU party referred it...

Contra: on paper the perfect matching of melodic impulses is only one note which is not even corresponding lyrics-wise, and its duration is different too. In this case this is not a proper way to reveal why the tunes are similar.

Pro: The lyrics-wise corresponding notes are shifted in time compared to each other. This shift is one beat for the first syllable, two beats for the rest of the phrase. This shift does not change the on-beat / off-beat placement of the notes.

Contra: The shifts in the placement decrease the extent of melodic similarity to a level that dozens of third-party songs can reach or even surpass.

Contra: Bolton's tune starts on the downbeat of the bar whereas the Isleys' tune starts on the second beat of the bar. None of the syllables are matching in terms of placement, except the fourth variant phrase with its perfect rhythmical match, but weaker melodic match.

Contra: Without the lyrics the two samples are merely resembling each other which is far from substantial similarity.

Contra: A third party song „Rollin' On A River” (title phrase, Creedence Clearwater Revival, 1969) is similarly close to the plaintiff melody.

Contra: Without the closely matching notes of the melody the lyrics (the title) is not too unique and not long enough to be protectable.

Contra: With the same melodic placement another third party song called "Love Is All Around" (The Troggs, 1968) shows closer similarity with the defendant: five notes of the original six are matching. Also note, that this one too is a title phrase hook, and it's also starting with the "love is..." words.

Pro: In addition to the title phrase the plaintiff's expert compiled four further **similar details**:

#1: the shifted cadence;

#2: the instrumental figures;

#3: the verse/chorus relationship;

#4: the fade-out ending

In the summary report it was not described where exactly the similarity #2 occurred, and what is the verse/chorus relationship exactly that is uniquely similar between the two songs.

Contra 4: Fade ending is commonplace.

Compared to the title phrase these details together are *de-minimis*. Four similarly significant similarities can be usually found between randomly chosen songs.

In the title phrases the two details are simultaneously occurring: the identic lyrics (that happens to be the title phrase), and the recognisably similar melody. Still it's a highly controversial case to call it an infringement. It is much closer case to call inspiration or accidental matching depending on the existance of the access.

A similar case would be a new song called "Love Is All Around" with the title phrase like this test tune below:

```

1 . 2 . 3 . 4 . 1
   3      3 2 1 4 6, : test tune
3 3 2 1 2 6,      : the original tune

```

No wonder this verdict was controversial. The melodic similarity of the main hook is undeniable, but very far from substantial similarity. The matching of the lyrics and the similar phrases being the main (title) hook of either song were pushing this case to the treshold of plagiarism. The additional four observations are much less relevant factors. My opinion is that this is either a case of recognisable inspiration (that is still not plagiarism) or accidental similarity.

Comparing Love Is A Beautiful Thing case to Blurred Lines case

In the case of Blurred Lines the closest melodic matching by far was the "dancing lady" vs. "if you can't hear", while other melodic similarities (including "I used to..." phrase, and bassline) were *de-minimis*.

```

1 . 2 . 3 . 4 . 1 . 2 . 3 : beats
  3 3#2 3                  : "dancin' lady"
  3#2 3 3                  : "if you can't hear"

```

Comparing **this** similarity with the „*Love Is A Wonderful Thing*“. The stronger points are underlined.

- Length of sample (number of syllables): **four** / seven
- Matching rate (perfect): **1/4** / 4/7 (*variant*)
- Role in the song: **different** / same
- Shape: **retrograde** / almost identic
- Rhythm: **close** / close, identic with the variant (*Isley*)

- Placement of start: **same** / *shifted, but same as the variant (Isley)*
- Lyrics: **different** / *identic*
- Special pitch: **there is** / *there is not*

Considering all above compared details "Love Is A Wonderful Thing" sample shows a significantly (7 vs. 2) closer melodic similarity than what we can find in the Blurred Lines case. And even this closer similarity is highly controversial. On the other hand Blurred Lines case the not protectable factors (falsetto singing, cowbell) work stronger.

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Correctional edit - 2018.03.01

At the point on "*okay now he was close*" a wrong example was taken out.

At the point on „*and that's why...*” a good example was added.

Appendix 2 was edited.