



MTO 23.4 Examples: Forrest, PL Voice Leading and the Uncanny in Pop Music

(Note: audio, video, and other interactive examples are only available online)

<http://www.mtosmt.org/issues/mto.17.23.4/mto.17.23.4.forrest.php>

Example 1. Primary chord progression from “I Got Id” by Pearl Jam, 1995 (0:00)

INTRODUCTION

D B $\flat$ D B $\flat$ D C/D
I bVI 6 I bVI 6 I bVII

VERSE 1

D B $\flat$ D B $\flat$ D Cadd2
I bVI 6 I bVI 6 I bVII

Example 2. contrary half-step motion between consonant and dissonant intervals

M3 dim5 M3 P8 aug6 P8

Example 3. Perceptual paradox from E major to C major, adapted from Cohn 2012b

E C ? C

Example 4. Chromatic, major-third relations between consonant triads (a) major PL (b) major LP (c) minor PL (d) minor LP (e) major PLP (f) minor PLP

Example 4 illustrates chromatic and major-third relations between consonant triads. The notation is divided into six parts: (a) major PL, (b) major LP, (c) minor PL, (d) minor LP, (e) major PLP, and (f) minor PLP. Each part shows a triad on a staff with red arrows indicating the chromatic movement of the notes and the resulting triad. The triads are labeled with their root notes: (a) C to A $\flat$, (b) C to E, (c) c to a $\flat$, (d) c to e, (e) C to a $\flat$, and (f) c to E.

Example 5. The *Tarnhelm* theme from *Das Rheingold*, Act 1 Scene 3, by Wagner

Example 5 shows the *Tarnhelm* theme from *Das Rheingold*, Act 1 Scene 3, by Wagner. The notation is in bass clef, 4/4 time, and shows a sequence of triads: g $\sharp$, e, g $\sharp$, e, g $\sharp$, e, and (B). The triads are labeled with their root notes and Roman numerals: i, $\flat$ vi, i, $\flat$ vi, i, $\flat$ vi, and III.

Example 6. "Honey Don't" by Carl Perkins, 1956, Verse 1 (0:07)

Example 6 shows the chord progression for "Honey Don't" by Carl Perkins, 1956, Verse 1 (0:07). The progression is: E: I, $\flat$ VI, I, $\flat$ VI. The chords are labeled with their root notes and Roman numerals: E: I, $\flat$ VI, I, $\flat$ VI. The progression is: E: I, $\flat$ VI, I, $\flat$ VI. The chords are labeled with their root notes and Roman numerals: E: I, $\flat$ VI, I, $\flat$ VI.

Well how come you say you will when you won't?

You tell me you do, baby, when you don't.

Let me know, honey, how you feel.

Tell the truth, now, is love real?

Example 7. “Even Flow” by Pearl Jam, 1991, Chorus (0:59)

D:I PL → $\flat$ VI (LP) → I $\flat$ VII
Even flow, thoughts arrive like butterflies.

I PL → $\flat$ VI (LP) → I $\flat$ VII
Oh he don't know so he chases them away.

Example 8. “Black” by Pearl Jam, 1991, Verse 2 (1:59)

E:I IV I IV
I take a walk outside, I'm surrounded by some kids at play.

I IV I
I can feel their laughter, so why do I sear?

PL → $\flat$ VI i
Ooh and twisted thoughts that spin round my head.

$\flat$ VI
I'm spinnin', oh I'm spinnin',

i
How quick the sun can drop away.

Example 9. “Look into My Eyes” by Janelle Monae, 2013, Verse 1 (0:16)

INTRODUCTION

a: i^9 LP bvi^9 PL i^9 LP bvi^9 PL

VERSE 1

i^9 LP bvi^9

Look in-to my eyes, _____ let them hyp-no- tise _____

Example 10. “Something in the Way” by Nirvana, 1991, Verse 1 (0:18)

F#:I PL bVI LP I PL bVI

Underneath the bridge, tarp has sprung a leak

LP I PL bVI LP I PL bVI

And the animals I trapped have all become my pets

LP I PL bVI LP I PL bVI

And I’m living off of grass and the drippings from the ceiling

I PL bVI LP I PL bVI

It’s ok to eat fish ‘cause they don’t have any feelings.

Example 11. “Blow Up the Outside World” by Soundgarden, 1996 (0:00)

INTRODUCTION

E: I $\xrightarrow{\text{PL}}$ $\flat$ VI $\xrightarrow{\text{LP}}$ I $\xrightarrow{\text{PL}}$ $\flat$ VI $\xrightarrow{\text{LP}}$
I $\xrightarrow{\text{PL}}$ $\flat$ VI $\xrightarrow{\text{LP}}$ I $\xrightarrow{\text{PL}}$ $\flat$ VI $\xrightarrow{\text{LP}}$

VERSE 1

I $\xrightarrow{\text{PL}}$ $\flat$ VI $\xrightarrow{\text{LP}}$ I $\xrightarrow{\text{PL}}$ $\flat$ VI $\xrightarrow{\text{LP}}$
Nothing seems to kill me

I I⁷ $\flat$ VII
no matter how hard I try

Example 12. “Kiss from a Rose” by Seal, 1994, Verse 1 (0:24)

G: I $\xrightarrow{\text{PL}}$ $\flat$ VI $\flat$ VII I
There used to be a greying tower alone on the sea

$\xrightarrow{\text{PL}}$ $\flat$ VI $\flat$ VII I
You became the light on the dark side of me

$\flat$ VII IV I
Love remained a drug that’s high and not the pill

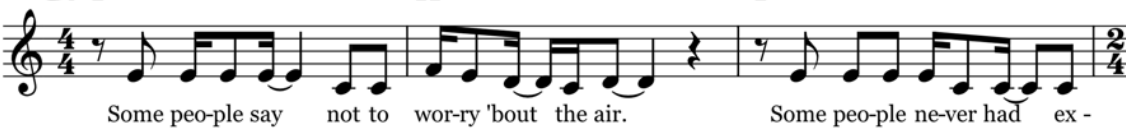
I $\xrightarrow{\text{P}}$ i $\xrightarrow{\text{L}}$ $\flat$ VI
But did you know that when it snows my eyes become

$\flat$ VII $\flat$ VI $\flat$ VII I
large and the light that you shine can’t be seen

Example 13. “Air” by the Talking Heads, 1979 (1:00)

PRECHORUS

C: I ii I



Some peo-ple say not to wor-ry 'bout the air. Some peo-ple ne-ver had ex -

CHORUS

ii III# **PL** → I **LP** → III# **PL** → I



pe - ri - ence with air, _ air... _

Example 14. “Two-Headed Boy” by Neutral Milk Hotel, 1998, Verse 1 (0:06)

[illegible]

Example 15. “People are Strange” by the Doors, 1967, Chorus (0:17)

e: V PL $\rightarrow$ $\flat$ III LP $\rightarrow$ V
 When you're strange faces come out of the rain

PL $\rightarrow$ $\flat$ III LP $\rightarrow$ V
 When you're strange no one remembers your name

When you're strange, when you're strange

When you're strange

Example 16. “Under Pressure” by Queen and David Bowie, 1981, Bridge (2:06)

G: I IV
 Turned away from it all like a blind man

I IV
 Sat on the fence but it don't work

 I IV
 Keep coming up with love but it's so slashed and torn

ii $\flat$ VII ii $\flat$ VII LP $\rightarrow$ II
 D: $\flat$ III V
 Why? Love! Love! Love!

V
 Insanity laughs under pressure we're breaking.

Example 17. “Supermassive Black Hole” by Muse, 2006, Chorus (0:48)

Chord progression: $e: iv$ $bIII$ $\xrightarrow{LP}$ V i

Lyrics: Ooh you set my soul a-light.
(backup vocals join on 3rd time)
Gla-ciers mel-ting in the dead of night and the su-per stars sucked in-to the su-per mas-sive...

Example 18. “Uprising” by Muse, 2009, Chorus (1:22)

Chord progression: $d: i$ i iv $bIII$ $\xrightarrow{LP}$ V V iv $bIII$ $\xrightarrow{LP}$ V^6

Lyrics: They will not force us They will not con-trol us They will stop de-gra-ding us.
We will stop be vic-to-ri-ous.

Example 19. “Strawberry Fields Forever” by The Beatles, 1967, Chorus (0:20)

Chord progression: Bb I f^7 V^7 G^7 $VI\#^7$ $\xrightarrow{PL}$ Eb IV $\xrightarrow{LP}$ G^7 $VI\#^7$ $\xrightarrow{PL}$ Eb IV Bb I

Lyrics: Let me take you down 'cause I'm go-ing to Straw-ber-ry Fields
Nothing is real and nothing to get hung a-bout Straw-ber-ry Fields for e-ver

Example 20. “Where is my Mind?” by the Pixies, 1988, Chorus (0:45)

E: ||: I vi | III# IV :|| x3
Where is my mind? Where is my mind?

Id *Tarnhelm*
| I **LP** → III# | IV **P** → iv **PL** → vi | V |
Way out in the water, see it swimmin'.

Example 21. “Bohemian Rhapsody” by Queen, 1975, Bridge 1 (3:10)

A: I IV I | III# V/III# | bIII V | I
...Fan - dan - go? Thunderbolts and lightning, very, very frightening me.

Example 23. “Today” by Smashing Pumpkins, 1993, Verse 1 (0:34)

I LP → III#
 This is Ground Control to Major Tom
 IV
 You've really made the grade

E♭: I V IV I V IV

To-day is the great - est day I've e - ver known. Can't live for to - mor - row. To-mor-row's much too long.

I V IV I (LP) V VI#

I'll burn my eyes out be - fore I get out.

F: I ♭III LP V I ♭III LP V

I want - ed more than life could e - ver grant me.

I ♭III LP V I ♭III II VI

Bored by the chore of sa - ving face.

Example 24. “Morning Bell” by Radiohead, 2000, Verse 2 (0:50)

System 1 (Measures 1-4):

- Chords:** a: i D: v, #iii vii, i v, #iii vii
- Annotations:** PL (Measure 1), LP (Measure 2), PL (Measure 3), LP (Measure 4)
- Vocal Line:** You can keep the fur-ni-ture, a bump on the head
- Guitar Line:** Chords with red arrows indicating phrasing (PL and LP) and fingerings (1).
- Bass Line:** (bass ad lib.)

System 2 (Measures 5-7):

- Chords:** i v, #iii vii, bVII IV
- Annotations:** LP (Measure 5)
- Vocal Line:** Haul 'em down the chim-ney, _ Re - lease
- Guitar Line:** Chords with red arrows indicating phrasing (LP) and fingerings (1).
- Bass Line:**

System 3 (Measures 8-10):

- Chords:** IV I, bVII IV, IV I
- Vocal Line:** me. Re - lease me.
- Guitar Line:** Chords
- Bass Line:**

Example 25. “Pennyroyal Tea” by Nirvana, 1993 (0:00)

VERSE 1

a
G
a:i
 $\flat$ VII

I'm on my time with e - very-one.

I have ve - ry bad pos - ture.

CHORUS

C
D
 $B\flat$ M7
a:III
IV
 $\flat$ II^{M7}
G:IV
V
 $\flat$ III^{M7}

PL →

Sit and drink _ pen - ny - ro - yal tea _ _ _ _ _

dis - til the life _ that's in - side of me. _ _ _ _ _

Sit and drink _ pen - ny - ro - yal tea _ _ _ _ _

I'm a - ne - mic ro - yal - - ty.

Example 26. Symphony in E $\flat$ major, K. 543, finale, by Mozart, adapted from Cohn 2012a, 25 (Fig. 2.5)

PL

A $\flat$: I $\longrightarrow$ bVI

I i bIII⁷ bVI

E: V⁷ I

m. 112

Example 27. “King of the World” by Steely Dan, 1973, Verse 1 (0:25)

PL

E: ||: bVI $\longrightarrow$ I :||

||: bVI bVII | I :||

Hello one and all.
 Was it you I used to know?
 Can't you hear me call
 On this old ham radio?
 All I got to say
 I'm alive and feeling fine.
 Should you come my way
 You can share my poison wine.

Example 28. “Gimme Shelter” by the Rolling Stones, 1969, Introduction (0:00)

Chord progression diagram for Example 28:

c#: I PL → $\flat VI^6$

Chord sequence: I, $\flat VII$, $\flat VI^6$

(voice enters 2nd time)
Ooh

(ad lib.)
4-3
9-8

(bass enters 4th time)

Example 29. “Wings” by Little Mix, 2012, Chorus (0:44)

Chord progression diagram for Example 29:

Chord sequence: $e: i$, III, $\flat VII$, $\flat VI$, $\flat VI$, $\flat VII$, I, I

LP

$e: i$

Ma - ma told me not to waste my life. She said

III

spread your wings my lit - tle but - ter - fly. Don't let

$\flat VII$

what they say keep you up at night. And

$\flat VI$

$\flat VI$

$\flat VII$

I

I

they can't de - tain you 'cause wings are made to fly.

Example 30. “Under the Bridge” by the Red Hot Chili Peppers, 1991, thematically independent terminal climax (3:14)

PL

A: I → $\flat VI^{M7}$

I i v_5^6 $\flat VI^{M7}$

Un - der the bridge down-town is where I drew some blood.
I could not get e - nough.
for - got a - bout my love.
I gave my life a - way.

Example 31a. “Lucy in the Sky with Diamonds” by The Beatles, 1967, Verse 1 (0:05), Verse 2 (1:08), Verse 3 (2:09)

PL

A: I → $\flat VI$

I I_2^4 vi $\flat VI^+$ I I_2^4 vi $\flat VI$

Pic-ture your - self in a boat on a ri - ver _ with tang-er - ine trees and mar - ma-lade skies.
Fol-low her - down to a bridge by a foun-tain _ where rock-ing horse people eat marsh-mal-low pies.
Pic-ture your - self on a train in a sta-tion _ with pla - sti - cine porters with look - ing glass ties.

Example 31b. “Lucy in the Sky with Diamonds” by The Beatles, 1967 pitch-class voice leading

Example 32. “Jeremy” by Pearl Jam, 1991, Chorus (2:12)

A: $\flat VI$ $\xrightarrow{\text{LP}}$ I

$\flat VI$ iv I

Je-re-my spoke in _ class _ to day _

Example 33. “Heathens” by twenty-One Pilots, 2016, Chorus (0:05)

E: $\flat VI$ $\xrightarrow{\text{LP}}$ I $\flat VI$ $\xrightarrow{\text{LP}}$ I

$\flat VI$ iv I $\flat VI$ iv I

All my friends are hea-thens take it slow. Wait for them to ask you who you know. Please

don't make a-ny sud-den moves. _ You don't know the half of the a - bused. _

Example 34. “Memories Can’t Wait” by the Talking Heads, 1979, thematically independent terminal climax (2:38)

PL

G: I → $\flat$ VI

I II⁷ IV $\flat$ VI

These me - mo - ries can't _ wait. _

Example 35. “Wuthering Heights” by Kate Bush, 1978, Verse 1 (0:07)

LP

A: I → III#

I **PL** → $\flat$ VI V⁷ III#

Out of the wi - ley, win - dy moors _ we'd roll and fall in green.

LP

I → III#

I **PL** → $\flat$ VI V⁷ III#

You had a tem - per _ like my jea-lou - sy _ too hot too gree - dy.

Example 36. “Hey Joe” by the Jimi Hendrix Experience, 1966, rhythmic reduction of harmonic ostinato (0:08)

Example 36 shows a rhythmic reduction of a harmonic ostinato from "Hey Joe" by the Jimi Hendrix Experience (1966). The score is presented in three staves: Vocals, pc voice leading, and Bass. The key signature is E major (three sharps). The harmonic progression is indicated by Roman numerals below the bass staff: E: bVI , $bIII$, $bVII$, IV, I. A large red curved arrow labeled "LP" (Lydian Pivot) spans the progression from bVI to I. Blue arrows indicate voice leading for the vocal line, and red arrows indicate voice leading for the pc voice leading.

Example 37. “A Day in the Life” by The Beatles, 1967, retransition (2:48)

Example 37 shows a retransition from "A Day in the Life" by The Beatles (1967). The score is presented in three staves: Voice, Orch., and Bass. The key signature is C major (no sharps or flats). The harmonic progression is indicated by Roman numerals above the voice staff: C, G, D, A, E. A large red arrow labeled "LP" (Lydian Pivot) points from C to E. The Voice staff shows the vocal line with "Ah" vocalizations. The Orch. staff shows the orchestral accompaniment. The Bass staff shows the bass line.

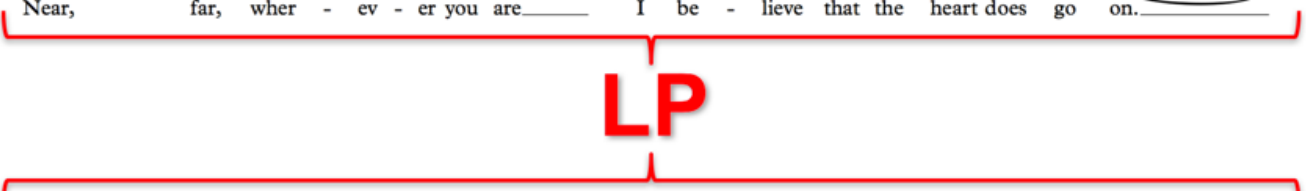
Example 38. “I Am the Highway” by Audioslave, 2002, Chorus (1:16)

a: $\flat$ III	$\flat$ VII	iv	i
I am not your rolling wheels, I am the highway.			
$\flat$ III	$\flat$ VII	iv	i
I am not your carpet ride, I am the sky.			
$\flat$ III	$\flat$ VII	iv	i
I am not your blowing wind, I am the lightning.			
$\flat$ III	$\flat$ VII	iv	V!
I am not your autumn moon, I am the night.			



Example 39. “My Heart Will Go On” by Celine Dion, 1997, Chorus 1 (0:58) and Chorus 3 (3:24)

E: vi	V	IV	V	vi	V	IV
						
Near, far, where - ev - er you are_____ I be - lieve that the heart does go on._____						
LP						
A $\flat$: vi	V	IV	V	vi	V	IV
						
You're here, there's no - thing I fear_____ and I know_____ that my heart will go on._____						



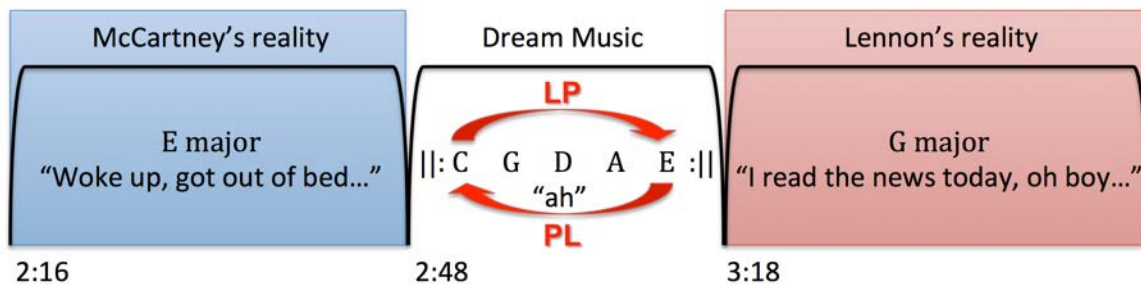
Example 40. “Penny Lane” by The Beatles, 1967 (0:33)

A Major Chorus (dreamy nostalgia)

I	I ⁶	IV	
Penny Lane is in my ears and in my eyes.			
I	I ⁶	IV	LP → V ⁷
There beneath the blue suburban skies I sit and meanwhile back			
I		ii ⁷	V ⁷
in Penny Lane there is a fireman with an hour glass.			

B Major Verse (present action)

Example 41. “A Day in the Life” by The Beatles, 1967



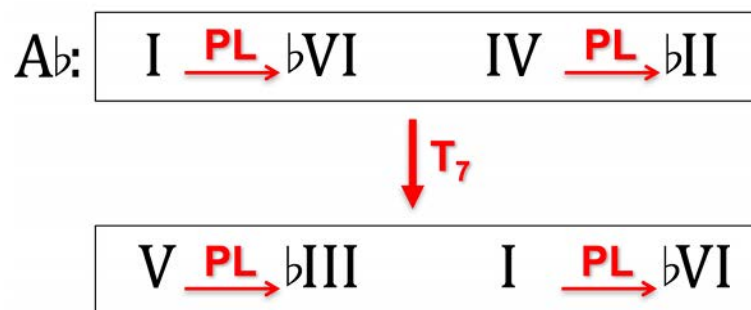
Example 42. “Birdhouse in your Soul” by They Might Be Giants, 1989, Chorus (0:14)

Blue ca-na-ry in the out-let by the light-switch who wat-ches o-ver you

make a lit-tle bird-house in your soul. Not to put too fine a point on it,

say I'm the on-ly bee in your bon-net. Make a lit-tle bird-house in your soul.

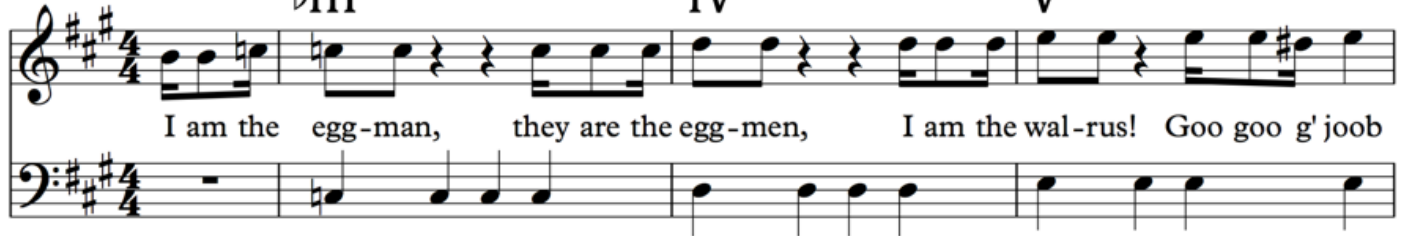
Example 43. Transformational network from the guitar solo of “Flying High Again” by Ozzy Osbourne, 1981 (2:32), adapted from Capuzzo 2004



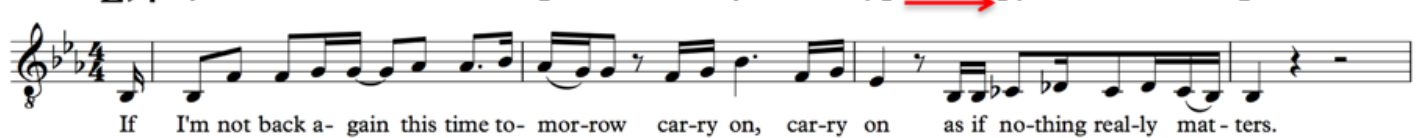
Example 44. “Peggy Sue” by Buddy Holly, 1957, Chorus (0:44)

A:I PL → $\flat$ VI LP →
 Peggy Sue, Peggy Sue, pretty, pretty, pretty, pretty
 I IV
 Peggy Sue, uh-oh, Peggy...

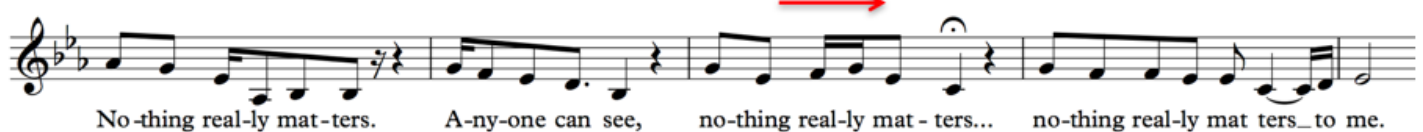
Example 45. “I Am the Walrus” by The Beatles, 1967, Chorus (0:54)

A: $\flat$ III LP → V
 $\flat$ III IV V


Example 46a. “Bohemian Rhapsody” by Queen, 1975 (1:32)

$E\flat$: V I V^6 vi LP → iv I


Example 46b. “Bohemian rhapsody” by Queen, 1975 (5:11)

vi iii vi iii vi LP → iv V I


Example 47. “Creep” by Radiohead, 1992, Verse 2 (0:39)

Transcendence

G:iv I LP III#

You float like a feather in a beautiful world.

Failed transcendence?

IV P iv I

I wish I was special. You're so fuckin' special, but I'm a creep.

Example 48. Lyrics to “Apocalypse Song” by St. Vincent, 2007

Verse 1

*Wait, I'll be swifter than the speed of light.
Carbon, all my body, a billion years of time.*

Verse 2

*You'll wake with the stitches over both your eyes
And deny me my body and all earthly delights.*

Chorus

*It's time, you are light. I guess you are afraid of what everyone is made of.
Time and light, I guess you are afraid of what everyone is made of.*

Verse 3

*All of your praying amounts to just one breath.
Please keep your victory but give me little death.*

Chorus

*It's time, you are light. I guess you are afraid of what everyone is made of.
Time and light, I guess you are afraid of what everyone is made of.*

Verse 4

*So, take to the streets with apocalypse refrain.
Your devotion has the look of a lunatic's gaze.*

Example 49a. “The Apocalypse Song” by St. Vincent, 2007, Verse 1 (0:04)

Chord progression: D: I ii° bVII vi I

Voice: Wait. I'll be swift-er than the speed of light.

Synth.

Bass

Chord progression: I ii° bVII vi **LP** iv

Voice: Car-bon, all my bo dy, a bil-lion years of time. You'll

Synth.

Bass

Example 49b. “The Apocalypse Song” by St. Vincent, 2007, Verse 2 (0:29)

Chord progression: I ii° bVII vi I

Voice: wake with the sti-tches o-ver both your eyes and

Synth.

Bass

(PL)

Chord progression: I ii° bVII vi bVI

Voice: de-ny me, my bo - dy, and all earth - ly de lights.---

Synth.

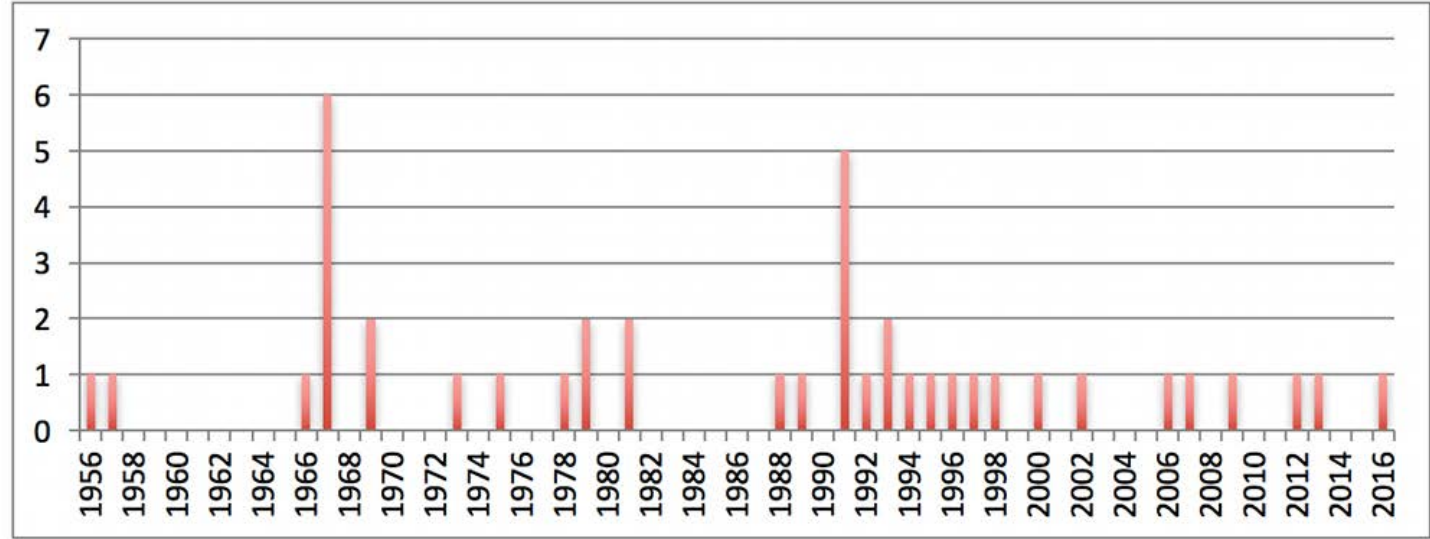
Bass

Example 49c. “The Apocalypse Song” by St. Vincent, 2007, Verse 3 (1:20)

Chord symbols: I, ii°, bVII, vi, LP, iv

Lyrics: All of your pray - ing a mounts to just one breath. (huh!) Please, keep your vic - to-ry but give me lit tle_ death._

Example 50. Timeline overview of the 41 examples analyzed above



Example 51. Grunge hits with prominent PL and LP transformations, 1991–1994

Year	Title	Artist	Billboard Alternative Charts	
			Peak Position	Weeks on Charts
1991	Smells Like Teen Spirit	Nirvana	1	20
1991	Alive	Pearl Jam	18	8
1991	Jeremy	Pearl Jam	5	11
1991	Even Flow	Pearl Jam	21	6
1991	Black	Pearl Jam	20	9
1992	Plush	Stone Temple Pilots	9	18
1993	Heart-Shaped Box	Nirvana	1	14
1993	Today	Smashing Pumpkins	4	23
1994	Black Hole Sun	Soundgarden	2	25
1994	Fell On Black Days	Soundgarden	13	28