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### **MTO 23.3 Examples: Richards, Tonal Ambiguity in Popular Music's Axis Progressions**

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

<http://www.mtosmt.org/issues/mto.17.23.3/mto.17.23.3.richards.php>

**Example 1.** The Four Forms of Axis Progressions

**a-form**

Am F C G

**F-form**

F C G Am

**C-form**

C G Am F

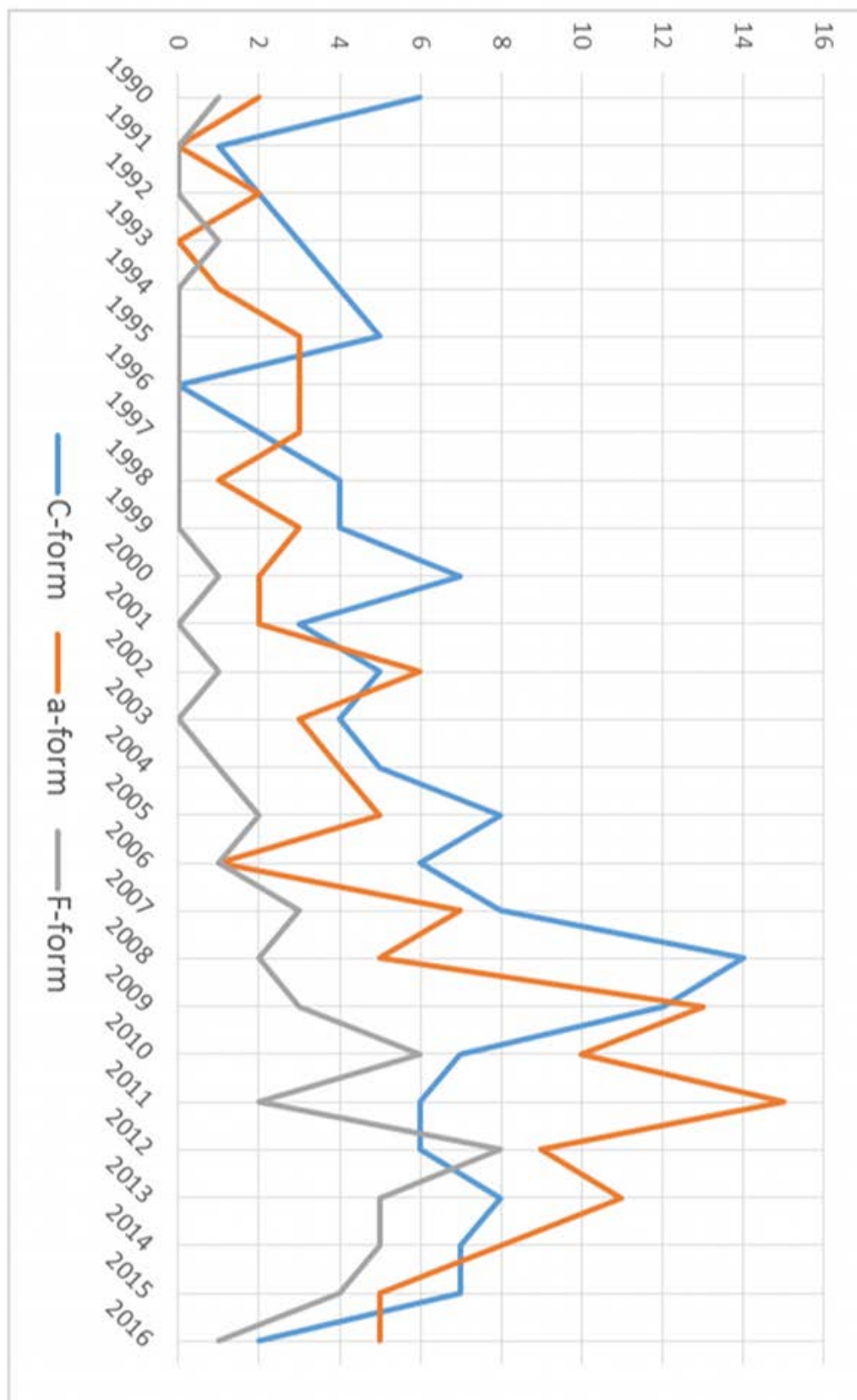
**G-form**

G Am F C

**Example 2a.** Overall Frequencies of Songs with the C-form, a-form, F-form, or G-form of Axis Progressions in the Billboard Year-End Hot 100 Corpus, 1990–2016

Axis Progression	# of Songs in Corpus	% Frequency (of 2715 songs)
C-form	146	5.4
a-form	129	4.8
F-form	47	1.7
G-form	10	0.4

**Example 2b.** Annual Frequencies of Songs with the C-form, a-form, and F-form of Axis Progressions in the Billboard Year-End Hot 100 Corpus, 1990–2016



**Example 3.** Doll's Types of Information for Determining Tonal Center and Function

From Doll 2017

1. Schema
2. Meter (stresses in meter or hypermeter)
3. Phrasing (first and last positions in a phrase)
4. Repetition (of chords or notes)
5. Texture (highest/lowest notes, title-carrying lyrics)
6. Scale
7. Duration
8. Pedal
9. Arpeggiation
10. Penultima (chord before an "anchor")
11. Loudness
12. Parallel (similar progressions in other parts of song or other songs)
13. Expression (meaning of lyrics)

**Example 4.** Means of Emphasizing Potential Tonic-Triad Notes in Axis Progressions

Category	Characteristics
Harmonic Emphasis	<ul style="list-style-type: none"><li>• Arpeggiation</li><li>• Dissonance resolution (through contrapuntal melodic figures)</li><li>• Pedal point</li><li>• Melodic-harmonic divorce (with tonic-triad notes in melody)</li></ul>
Temporal Emphasis	<ul style="list-style-type: none"><li>• Beginning or end position in a vocal phrase, section, or song</li><li>• Stresses in meter, hypermeter, and grammar (in lyrics)</li></ul>
Rhetorical Emphasis	<ul style="list-style-type: none"><li>• Note repetition</li><li>• Long duration (relatively)</li><li>• Melodic high and low points</li><li>• Change in texture, timbre, or melodic style</li><li>• Loudness stress</li></ul>
Contextual Emphasis	<ul style="list-style-type: none"><li>• Tonality in other sections of the song</li><li>• Parallels between sections or between different songs</li><li>• The major-mode bias</li></ul>
Poetic Emphasis	<ul style="list-style-type: none"><li>• Meaning of lyrics or other vocal utterances</li></ul>

**Example 5.** Red Hot Chili Peppers, “Don’t Forget Me,” Verses 1 and 2

**1**  
VERSE 1

A<sup>5</sup> F<sup>5</sup> C<sup>5</sup> G<sup>5</sup>

Voice

8

Emphasized Aeolian-Tonic Notes

I'm an oc-ean in your bed-room, make you feel warm, make you want to re-as-sume,

**2**

A<sup>5</sup> F<sup>5</sup> C<sup>5</sup> G<sup>5</sup>

now we know\_\_\_ it all\_\_\_ for sure.---

**3**  
VERSE 2

A<sup>5</sup> F<sup>5</sup> C<sup>5</sup> G<sup>5</sup>

I'm a dance hall, dir-ty break beat, make the snow fall\_\_\_ up from un-der-neath your feet.---

**4**

A<sup>5</sup> F<sup>5</sup> C<sup>5</sup> G<sup>5</sup>

Not al - one,\_\_\_ I'll be there, tell\_\_\_ me when you want to go.---

**Example 6.** Beyoncé, “If I Were a Boy,” Verse 1

1 Ebm Cb Gb Db/F 2 Ebm Cb

Voice

If I were a boy, — e-ven just for a day, —

Emphasized Major-Tonic Notes

3 Gb Db/F Ebm Cb 4 Gb Db/F Ebm Cb

I'd roll out-ta bed in the morn-ing and throw on what I want-ed then go, —

**Example 7.** A Great Big World, “Say Something,” Verse 1

**1** INTRO

Chords: Bm G D A

Voice

Piano

Emphasized Major-Tonic Notes

**2** VERSE 1

Chords: Bm G D A

Say some-thing, I'm giv-ing up on you.

**3**

Chords: Bm G D A

I'll be the one if you want me to.

**Example 8.** The Offspring, “Self Esteem,” Verse 1

1 Am F C G 2 Am F C G

Voice

I wrote her off for the tenth time to- day, I prac-ticed all the things I would say...

Emphasized Major-Tonic Notes

3 Am F C G 4 Am F C G

When she came o- ver, I lost my nerve, I took her back and made her des- sert...

Emphasized Major-Tonic Notes

**Example 9.** Sia, “Cheap Thrills,” Verse 1

1 F#m D A E

Voice

Come on, come on, turn the ra-di-o on, it's Fri-day night and I won't be long, got-ta

Emphasized Major-Tonic Notes

2 F#m D A E

do my hair, put my make-up on, it's Fri-day night and I won't be long 'til I

Emphasized Major-Tonic Notes



**Example 10.** Sia, “Never Give Up,” Verse 1

**1**

F#m D A E

Voice

Emphasized Aeolian-Tonic Notes

I've bat - tled de - mons that won't let me sleep, \_\_\_\_\_

**2**

F#m D A E

called to the sea\_ but she ab - an - doned me, \_\_\_\_\_ but I won't

**Example 11.** Eminem featuring Rihanna, “Love the Way You Lie,” Chorus

**1**

Gm Eb

Voice

Just gon-na stand there and watch me\_\_ burn,\_\_ well, that's al-right

Emphasized Aeolian-Tonic Notes

Emphasized Major-Tonic Notes

**2**

Bb F/A Gm

be-cause I like\_ the way\_ it hurts.\_\_ Just gon-na stand there and hear me\_\_ cry,

well, that's al-right be-cause I love the way you lie,\_\_ I love the way you lie,\_\_

well, that's al-right

be-cause I love the way you lie,\_\_

I love the way you lie,\_\_

**Example 12.** Bruno Mars, “Grenade,” End of Prechorus and Beginning of Chorus

(PRE-CHORUS) CHORUS

1

2

3

4

Voice

Emphasized Aeolian-Tonic Notes

Emphasized Major-Tonic Notes

Dm Gm/Bb A Dm Bb

'cause what you don't un-der stand is I'd catch a gren - ade for ya, (yeah,

yeah, throw my hand on a blade for ya, (yeah, yeah, I'd jump in front of a train for ya, (yeah,

yeah, you know I'd do a - ny - thing for ya, (yeah, yeah, oh, oh, I would

**Example 13.** Joan Osborne, “One of Us,” End of Prechorus and Beginning of Chorus

1
2

(PRE-CHORUS)      CHORUS

E      F<sup>♯</sup>m   D   A   E   F<sup>♯</sup>m   D   A   E

Voice

yeah, yeah, yeah. What if God was one of us?      Just a slob like one of us?      Just a

Emphasized  
Aeolian-Tonic  
Notes

Emphasized  
Major-Tonic  
Notes

**Example 14.** Edward Maya and Vika Jigulina, “Stereo Love,” Beginning of Chorus

C<sup>♯</sup>m      A

Emphasized  
Aeolian-Tonic  
and Major-Tonic  
Notes

Accordion

E      Voice      G<sup>♯</sup>m

I hate to see you cry,      your smile is a beau - ti - ful lie.

**Example 15.** Rihanna, “Umbrella,” Beginning of First Chorus

**1**

(Bbm) Gb Db

Voice

Be-cause when the sun shines, we shine to-ge-ther, told you I'll be here for-ev

Emphasized Major-Tonic Notes

Emphasized Aeolian-Tonic Notes

**2**

Ab Bbm Gb

er, said I'd al-ways be your friend, took an oath, I'm a stick it out to the end.

**Example 16.** Rihanna, “Umbrella,” End of Bridge and Beginning of Third Chorus

END OF BRIDGE 3RD CHORUS

C $\flat$  G $\flat$  F 7 $\hat{}$  8 $\hat{}$

Voice

So go on and let the rain\_ pour, I'll be all you need and more\_ be-cause

Emphasized Major-Tonic Notes

B $\flat$  Minor:  $\flat$ VI V

Emphasized Aeolian-Tonic Notes

**1**

G $\flat$  D $\flat$ /A $\flat$

when the sun shines, we shine to - ge - ther. Told you I'll be here for - ev -

(Contextually)

**2**

Fm B $\flat$ m G $\flat$

er, said I'd al - ways be your friend, took an oath, I'm a stick it out to the end.

**Example 17.** Madonna, “Like a Prayer,” Intro

Voice: Dm C/D Edim/D Dm C/D Edim/D Dm  
 Life is a mys - te - ry, ev - ery - one must stand al - one. I hear you  
 D Aeolian: i bVII<sup>7</sup> i bVII<sup>7</sup> i

call my name, and it feels like home.  
 F major: V<sup>6</sup><sub>4</sub><sup>2</sup> I<sup>6</sup> IV V<sup>6</sup><sub>4</sub><sup>5</sup><sub>3</sub> vi?  
 D Aeolian: bVII? i?

**Example 18.** Madonna, “Like a Prayer,” First Chorus

Voice: F C  
 When you call my name, it's like a lit - tle prayer,  
 F major: I V

I'm down on my knees, I want to take you there.  
 Bb F/A Dm<sup>7</sup> C/E F  
 IV I<sup>6</sup> vi<sup>7</sup> V<sup>6</sup> I

**Example 19.** Madonna, “Like a Prayer,” First Verse

**1**

(VERSE) Bb/D C/D Bb/D CHORUS (elided)

F/A

Voice

you know I'll take you there. I hear your voice,

Bass Line

Bass Guitar

Bass Line of Synth Organ

Emphasized Major-Tonic Notes

Emphasized Aeolian-Tonic Notes

(Contextually)

F/C C Dm

it's like an an - gel sigh - ing.



**Example 20.** Sarah McLachlan, “Building a Mystery,” Verse 1

**1**

Bm G D A

Voice

3

You come out at night that's when the en-er-gy comes and the

Emphasized Major-Tonic Notes

(F# representing F#)

Emphasized Aeolian-Tonic Notes

**2**

Bm G D A Bm G

dark side's light\_ and the vam-pires roam. You strut your ras-ta wear and your

**3**

**4**

D A Bm G D A E

su-i-cide\_ po-em\_ and a cross from a faith\_ that died be-fore Je-sus came.\_

**Example 21.** Sarah McLachlan, “Building a Mystery,” Verse 2

**1**

Bm G D A

Voice

You live in a church where you sleep with voo-doo dolls and you

Emphasized Major-Tonic Notes

(F: representing F#)

Emphasized Aeolian-Tonic Notes

**2**

Bm G D A

won't give up the search for the ghosts in the halls.

**3**

Bm G

You wear sandals in the snow and a

**4**

D A Bm G D A

smile that won't wash away. Can you look out the window without your shadow getting in the way?

**Example 22.** Sarah McLachlan, “Building a Mystery,” Verse 3

**1**

Bm G D A

Voice

You woke up scream-ing a-loud, a prayer from your sec-ret god. You

Emphasized Major-Tonic Notes

(F# representing F#)

Emphasized Aeolian-Tonic Notes

**2**

Bm G D A Bm **3** G

feed off our\_ fears\_ and hold back your tears, ah. You give us a tan-trum and a

**4**

D A Bm G D A

know - it - all\_ grin\_ just when you need one when the eve-ning's thin.\_