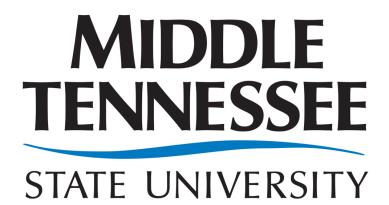
"Three Chords & the Truth"?: A Corpus Analysis of Harmony in Country Music

Trevor de Clercq



Int. Country Music Conference May 31, 2018 Belmont University

"Three Chords & the Truth"?: A Corpus Analysis of Harmony in Country Music

I. Background
II. Methods
III. Results
IV. Discussion

CHAPTER ONE THE BACKGROUND

Music Theory/Analysis Research on Harmony in "Rock"

- "The So-Called 'Flattened-Seventh' in **Rock**" (Moore 1995)
- *Understanding Rock* (Covach and Boone 1997)
- *Rock:* The Primary Text (Moore 2001)
- What to Listen for in **Rock** (Stephenson 2002)
- "Making Sense of Rock's Tonal Systems" (Everett 2004)
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- "The Cadential IV in **Rock**" (Temperley 2012)
- "Modal Tonicization in **Rock**" (Clement 2013)
- "Counterpoint in **Rock** Music" (Nobile 2015)
- "Harmonic Functions in **Rock** Music" (Nobile 2016)
- Hearing Harmony: Toward a Tonal Theory for the **Rock** Era (Doll 2017)
- "Rock Harmony Reconsidered" (Osborn 2017)
- The Musical Language of **Rock** (Temperley 2018)

Music Theory/Analysis Research on Harmony in "Rock" or "Pop/Rock"

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- "Rock Harmony Reconsidered" (Osborn 2017)
 The Musical Language of Rock (Temperley 2018)
 "British Pop-Rock Music in the Post-Beatles Era" (Spicer 2001)
- "Neo-Riemannian Theory and the Analysis of Pop-Rock Music" (Capuzzo 2004)
- "Retrogressive Harmonic Motion... (in) **Pop-Rock** Music" (Carter 2005)
- Expression in **Pop-Rock** Music (Everett 2008)

- "Guitar Voicing in Pop-Rock Music" (Koozin 2011)
 "Anti-Circles as... Model for Harmonic Motion in Pop-Rock Music (Traut 2015)
 "Fragile, Emergent, and Absent Tonics in Pop and Rock Songs" (Spicer 2017)

Genre Share of Listenership in the U.S., 2016 Year-End Report (Nielsen 2017)

Rock	29%
R&B/Hip-Hop	22%
Pop	13%
Country	10%
Dance/Electronic	4%
Christian/Gospel	3%
Latin	3%
Holiday/Seasonal	2%
Jazz	1%
Classical	1%
Children's	1%

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Harmony in Country Music

Harlan Howard: Country music is "three chords and the truth" (in Dansby 2002).

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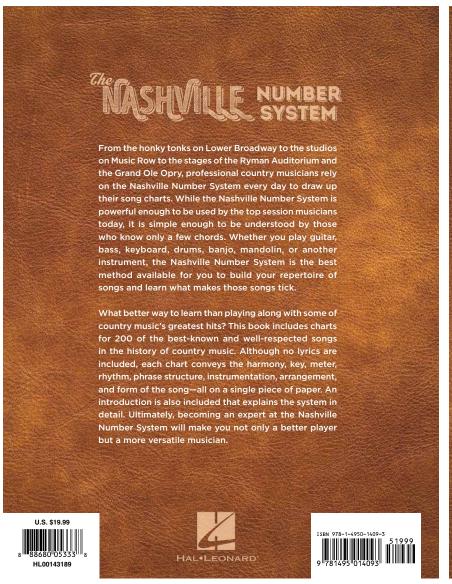
Jocelyn Neal: "One of the enduring clichés about country music is its primitive harmonic language..., (yet) nothing could be further from the truth" (2008, 291-292).

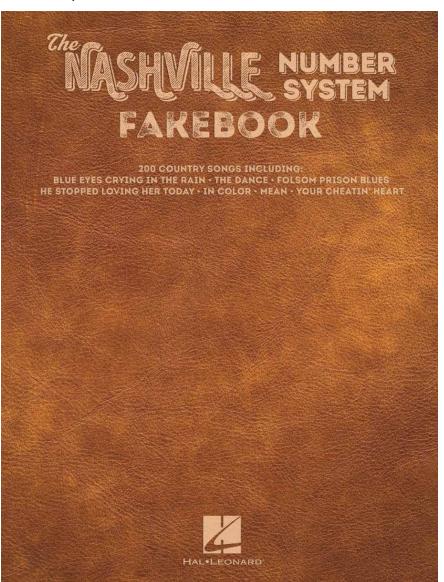
Some of My Computational Work with Popular Music (based on the RS 200)

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CHAPTER TWO THE METHODS

The Nashville Number System Fakebook (de Clercq 2015)







Sources for the Songs (de Clercq 2015)

- · Academy of Country Music. 1967-2014. "Single of the Year."
- · Academy of Country Music. 1967-2014. "Song of the Year."
- · Allmusic. 2015. "Country Song Highlights."
- · American Music Award. 1974-1995. "Favorite Country Single."
- · Billboard. 1946-2014. "Year-End #1 Country Singles."
- · Billboard. 2014. "Top 70 Country Songs 1989-2014."
- Billboard. 2008. "Billboard 50th Anniversary Charts: All-Time Top Country Songs."
- Country Music Television. 2003. "CMT 100 Greatest Songs of Country Music."
- Country Music Association. 1967-2014. "Single of the Year."
- · Country Music Association. 1967-2014. "Song of the Year."
- Nashville Songwriters Association International. 1967-2014. "NSAI Song of the Year."
- The Recording Academy. 1965-2014. "Grammy Award for Best Country Song."
- Rolling Stone. 2014. "100 Greatest Country Songs of All Time."
- · Taste of Country. 2012. "Top 100 Country Songs."

METHODS

Sample of Songs in the "NN 200"

- "Wabash Cannonball" (Roy Acuff, 1933)
- "Foggy Mountain Breakdown" (Flatt & Scruggs, 1950)
- "Your Cheatin' Heart" (Hank Williams, 1952)
- "Ring of Fire" (Johnny Cash, 1962)
- "King of the Road" (Roger Miller, 1964)
- "D-I-V-O-R-C-E" (Tammy Wynette, 1968)
- "Always On My Mind" (Willie Nelson, 1971)
- "Rhinestone Cowboy" (Glen Campbell, 1974)
- "He Stopped Loving Her Today" (George Jones, 1978)
- "Forever and Ever, Amen" (Randy Travis, 1987)
- "Friends in Low Places" (Garth Brooks, 1990)
- "Strawberry Wine" (Deana Carter, 1996)
- "Alcohol" (Brad Paisley, 2005)
- "Need You Now" (Lady Antebellum, 2009)
- "Mean" (Taylor Swift, 2010)
- "Cruise" (Florida Georgia Line, 2012)
- "Automatic" (Miranda Lambert, 2014)

METHODS

Chart of "80's Ladies" (K. T. Oslin, 1987)

KEY OF C

4 J = 100 4

80'S LADIES

(K. T. OSLIN)

SPARSE TEXTURE IN)
$$1^2$$
 $\frac{1^2}{2}$

$$\frac{1^2}{3}$$

1
$$2^{-7}$$
 $\frac{1}{3}$ 4^2

1
$$1^{\frac{6}{4}}$$
 1 5 5

FULL TEXTURE

CH) 1
$$\frac{1}{1}$$
 5 4

42

SPARSE

VR)

1
$$2^{-7}$$
 $\frac{1}{3}$ 4^2

1
$$1^{\frac{6}{4}}$$
 1 5

FULL TEXTURE

CH)

SPARSE

OUT)
$$1^2$$
 $\frac{1^2}{3}$ 4^2 5

$$1^2$$
 $\frac{1^2}{3}$ 4^2 5

(REPEAT OUTRO & FADE)

Chart of "80's Ladies" (K. T. Oslin, 1987)

FULL TEXTURE

CH) 1
$$\frac{1}{1}$$
 5 4 4 1 $1^{\triangle 9}$ 6- 6- 6- 5 5

Chart of "80's Ladies" (K. T. Oslin, 1987)

FULL TEXTURE

Encoded Excerpt of "80's Ladies"

```
% Title: 80's Ladies
% Artist: K. T. Oslin
% Copyright: 1987
[Key: C]
[Meter: 4/4]
[Tempo: QN = 100]
[Feel: Normal]
    12 12/3 42 594
In:
    12 12/3 42 594
    1 2-7 1/3 42
Vr:
    1 (164 <1) 1 5
     2-7 1/3 42
     (164 <1) 5
    1
        57
    1 (1...5) 4
Ch:
     1M9 6- 6- 6-
    1
```

CHAPTER THREE THE RESULTS

NN	200
O	0.0%
3	1.5%
	0

	NN	200
1 chord	0	0.0%
≤ 2 chords	3	1.5%
≤ 3 chords	53	26.5%

200	RS	200	NN	
	o o	0.0%	0	1 chord
	o'	1.5%	3	≤ 2 chords
	o'	26.5%	53	≤ 3 chords

	NN	200	RS	200
1 chord	0	0.0%		2.5%
≤ 2 chords	3	1.5%		5.0%
≤ 3 chords	53	26.5%		

	NN	200	RS 200
1 chord	0	0.0%	2.5%
≤ 2 chords	3	1.5%	5.0%
≤ 3 chords	53	26.5%	28.5%

	NN	200	RS 200
1 chord	0	0.0%	2.5%
≤ 2 chords	3	1.5%	5.0%
≤ 3 chords	53	26.5%	28.5%
≤ 4 chords	100	50.0%	48.0%

	NN	200	RS 200
1 chord	0	0.0%	2.5%
≤ 2 chords	3	1.5%	5.0%
≤ 3 chords	53	26.5%	28.5%
≤ 4 chords	100	50.0%	48.0%
≤ 5 chords	146	73.0%	65.5%
≤ 7 chords	188	94.0%	86.0%
≤ 9 chords	196	98.0%	95.0%
≤ 10 chords	199	99.5%	96.5%
≤ 14 chords	200	100.0%	99.0%

Triad	Insta		
I	4,602	32.7%	
V	3,586	25.5%	
IV	3,360	23.8%	

Triad	Instances		Ba	rs
I	4,602	32.7%	7,800	43.6%
V	3,586	25.5%	3,945	22.0%
IV	3,360	23.8%	3,621	20.2%

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Instances of I, IV, V in NN 200: 82% Bars of I, IV, V in NN 200: 86%

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vi	851	6.0%	813	4.5%

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Instances of I, IV, V in RS 200: 79% Bars of I, IV, V in RS 200: 85%

Triad	Instances		Bars	
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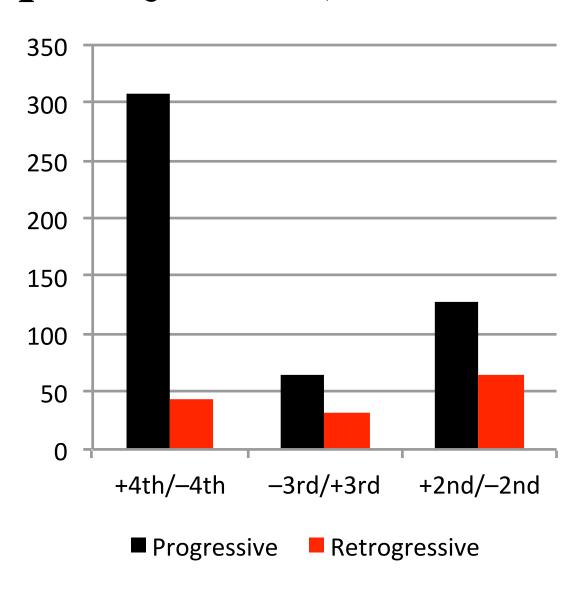
Instances of I, IV, V in RS 200: 79% Bars of I, IV, V in RS 200: 85%

Instances of I, IV, V in early CP: 79%

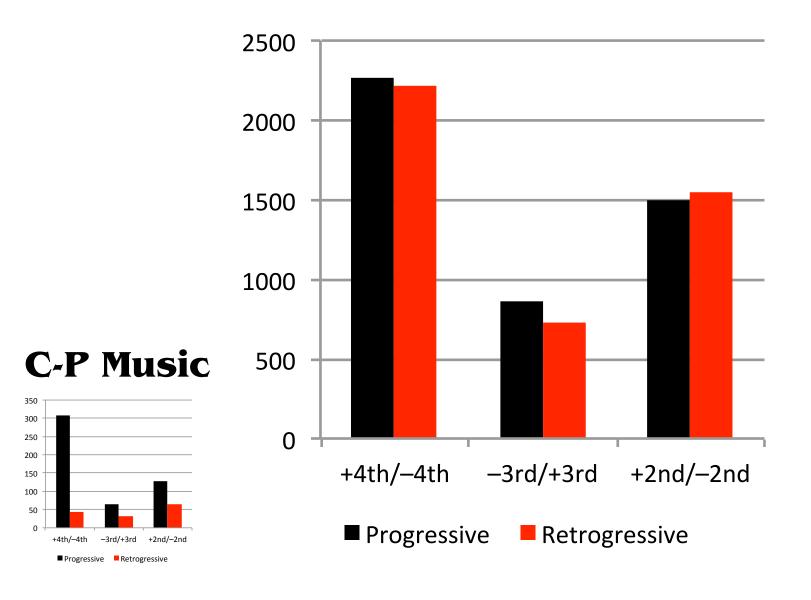
RESULTS

Triad	Instances		Bars	
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V	3,586	25.5%	3,945	22.0%
IV	3,360	23.8%	3,621	20.2%
vi	851	6.0%	813	4.5%
ii	704	5.0%	677	3.8%
bVII	225	1.6%	208	1.2%
II	182	1.3%	193	1.1%
iii	120	0.9%	133	0.7%
i	97	0.7%	194	1.1%
bVI	76	0.5%	71	0.4%
III	73	0.5%	69	0.4%
V	51	0.4%	44	0.2%
VI	34	0.2%	40	0.2%
iv	23	0.2%	26	0.1%

Root Motion in Common-Practice Music (Temperley 2009)

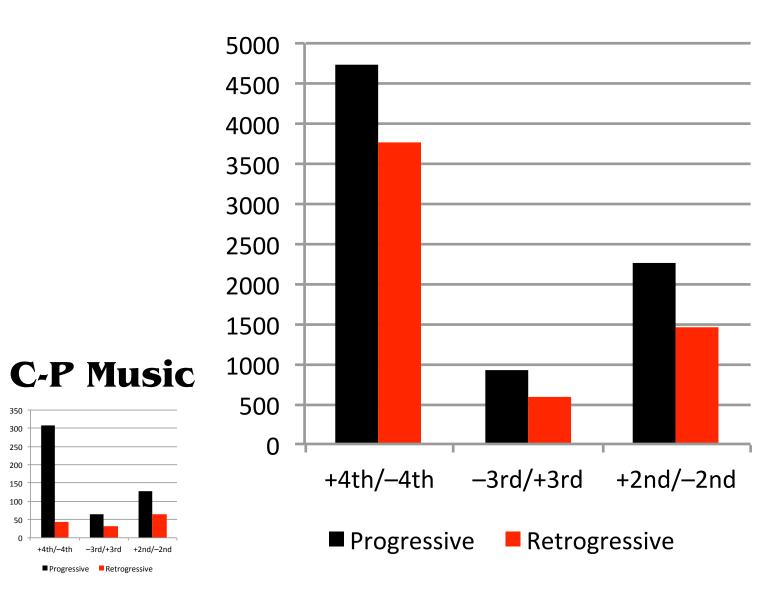


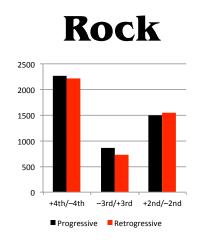
Root Motion in Rock Music (de Clercq & Temperley 2011)



RESULTS

Root Motion in Country Music (the NN 200)





Two-chord Patterns in the NN 200, Ranked by Asymmetry

Pattern XY	Interval	Motion Type	Factor	Pattern YX	Pairs
bVII – IV	-P4	Retrogressive	5.52	IV – bVII	137
I – bVII	-M2	Retrogressive	3.60	bVII – I	161

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I – bVII	-M2	Retrogressive	3.60	bVII – I	161
iii – IV	+m2	Progressive	3.55	IV – iii	100
vi – IV	-M3	Progressive	3.18	IV – vi	506
I – vi	-m3	Progressive	2.36	vi – I	423
ii – V	+P4	Progressive	1.99	V – ii	542
I – ii	+M2	Progressive	1.76	ii – I	502
IV – V	+M2	Progressive	1.67	V – IV	1,907
V – vi	+M2	Progressive	1.65	vi – V	593
V – I	+P4	Progressive	1.40	I – V	3,751
ii – IV	+m3	Retrogressive	1.09	IV – ii	232
I – IV	+P4	Progressive	1.03	IV – I	3,587

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Root-position chords in NN 200: ~94%

Non-root-position Chords in the NN 200

Triad and Bass	Instances		Common Chords Before		Common Chords After	
I over 3	373	(41.2%)	IV	(43%)	IV	(61%)
			I	(30%)	ii	(27%)
			ii	(23%)		
V over 7	213	(23.5%)	I	(68%)	vi	(55%)
			vi	(14%)	I	(27%)
I over 5	78	(8.6%)	Vİ	(83%)	IV	(77%)
IV over 6	67	(7.4%)	I	(30%)	I	(37%)
			bVII	(28%)	V	(21%)
					V over 7	(21%)
V over 4	40	(4.4%)	IV	(68%)	IV	(44%)
			I	(33%)	I	(36%)
IV over 1	28	(3.1%)	I	(61%)	I	(50%)
I over 7	22	(2.4%)	I	(91%)	Vi	(82%)

Non-root-position Chords in the NN 200

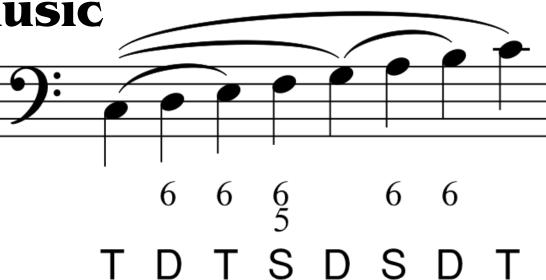
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Chart of "80's Ladies" (K. T. Oslin, 1987)

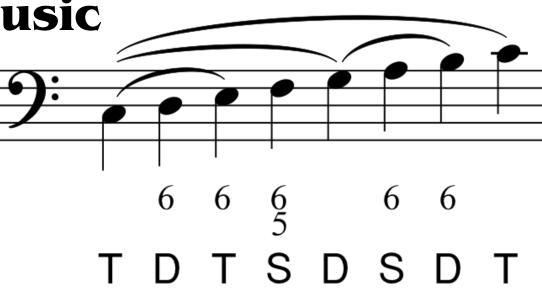
FULL TEXTURE

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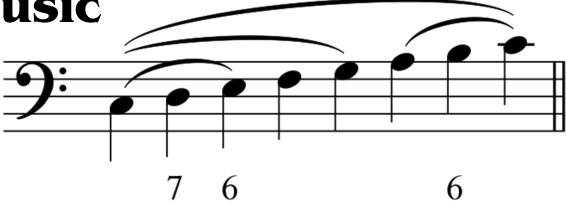
A "Rule of the Octave" for Classical Music



A "Rule of the Octave" for Classical Music



A "Rule of the Octave" for Country Music



TSTSDTDT

CHAPTER FOUR THE DISCUSSION

Like Rock (& unlike Classical), Country:

- Employs bVII much more frequently than vii^O
- Shows a much greater use of root-position chords than inversions
- Shows a good deal of retrogressive harmonic motion (e.g., V–IV, V–ii, ii–I)
- Has subdominant often acting in cadential role

Like Rock (& unlike Classical), Country:

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Like Classical (& unlike Rock), Country:

- Uses more dominant chords overall than subdominant
- Shows a greater use overall of progressive harmonic motion than retrogressive motion
- Shows greater use of traditional cadential motion (e.g., ii–V–I, IV–V–I) than plagal motion

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Other Notable Features of Country:

- Is almost always set in a major key
- Does not have significantly more three-chord songs than rock
- Relies only slightly more heavily on I, IV, and V than other styles
- Rarely has a harmonic palette of more than 7 different chords

DISCUSSION

THANK YOU!

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