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Extended essay cover

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Candidate session number			
Candidate name			
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Examination session (May or November)	May	Year	2012

Diploma Programme subject in which this extended essay is registered: Music

(For an extended essay in the area of languages, state the language and whether it is group 1 or group 2.)

Title of the extended essay: Harmonic Innovation in the Music of The Beatles

Candidate's declaration

This declaration must be signed by the candidate; otherwise a grade may not be issued.

The extended essay I am submitting is my own work (apart from guidance allowed by the International Baccalaureate).

I have acknowledged each use of the words, graphics or ideas of another person, whether written, oral or visual.

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Please comment, as appropriate, on the candidate's performance, the context in which the candidate undertook the research for the extended essay, any difficulties encountered and how these were overcome (see page 13 of the extended essay guide). The concluding interview (viva voce) may provide useful information. These comments can help the examiner award a level for criterion K (holistic judgment). Do not comment on any adverse personal circumstances that may have affected the candidate. If the amount of time spent with the candidate was zero, you must explain this, in particular how it was then possible to authenticate the essay as the candidate's own work. You may attach an additional sheet if there is insufficient space here.

(I spent 4½ hours with regarding his extended essay)

has shown an incredible amount of commitment in the researching and writing of his extended essay, *Harmonic Innovation in the Music of The Beatles.* The research process took a great deal of time as his goal was to ensure that he included all relevant data in his paper. A concern for was to know when to stop researching. The *viva voce* witl vas a pleasure as he analyzed a great deal of music composed by The Beatles and is capable to demonstrate his excellent knowledge and understanding in conversation.

This declaration must be signed by the supervisor; otherwise a grade may not be issued.

I have read the final version of the extended essay that will be submitted to the examiner.

To the best of my knowledge, the extended essay is the authentic work of the candidate.

I spent 4½ hours with the candidate discussing the progress of the extended essay.

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Assessment form (for examiner use only)

Candidate session number	

Criteria	Achievement level				
	Examiner 1	maximum	Examiner 2	maximum	Examiner 3
A research question	2	2	2	2	
B introduction	2	2	2	2	
C investigation	3	4	3	4	
D knowledge and understanding	2	4	2	4	
E reasoned argument	3	4	3	4	
F analysis and evaluation	3	4	3	4	
G use of subject language	3	4	3	4	
H conclusion	1	2	1	2	
I formal presentation	4	4	3	4	
J abstract	1	2	1	2	
K holistic judgment	3	4	3	4	
Total out of 36	27		26		

e of examiner 1: _____ Examiner number: _____
ITAL letters)

e of examiner 2: _____ Examiner number: _____
ITAL letters)

e of examiner 3: _____ Examiner number: _____
ITAL letters)

IB Cardiff use only: **B:** ✓

IB Cardiff use only: **A:** 104836 **Date:** 11/5

Harmonic Innovation in the Music of The Beatles

Candidate Number
May 2012 exams
Subject: Music
Advisor's Name:
Word Count: 3963

Abstract

The Beatles' have received critical acclaim for the quality of their music. While their music was very innovative, for the lyrics, recording techniques and effects used, this essay examines how the music itself was innovative through the elements of music. The Beatles' total musical output is immense, and all of the elements of music cannot be examined within the confines of this essay. The scope of this essay is therefore limited to investigating the element of harmony. This leads to the research question: How was The Beatles' music harmonically innovative?

In order to choose relevant examples from The Beatles extensive catalogue, a book with transcriptions of over 120 of their songs was examined, coupled with listening to the recorded tracks. Songs were chosen to be included in this essay for analysis to demonstrate different harmonic techniques employed by The Beatles. Relevant examples taken directly from transcriptions of songs by The Beatles are used as primary sources to guide the research and analysis in this essay.

Through the analysis of musical examples by The Beatles', it is shown how their music was harmonically innovative with the confines of Western popular music. The Beatles' use of harmonic techniques and progressions borrowed from jazz and altered or out of key chords to create chromaticism allowed them to create dissonances in their music that still managed to sound natural and pleasant. By only breaking some of the conventions of diatonic harmony, they were able to be harmonically innovative while keeping their music commercially viable. However, the harmonies they used in their music were complex by standards in popular music right from their first album, and the innovation continued throughout their career.

(Word Count: 277)

COULD HAVE MENTIONED SONGS TO BE ANALYSED.

Table of Contents

Introduction

In Western popular music there is no band whose artistic, critical and commercial success has equalled that of The Beatles. (Kamien, 2008)Throughout the course of their short seven-year recording career, the "Fab Four" revolutionised popular music. They exposed the general public to musical ideas that they would not otherwise have experienced through popular music. So what was it that made The Beatles so great? Their first album was practically a live recording, the majority of which was recorded during a single twelve-hour session in mono on two track tapes. Their final albums were some of the first true stereo recordings ever made, each recorded over a period of several months, multi-tracked layer upon layer to the point of excess. As their career progressed, their musicianship improved considerably as both their technical skills and use of effects increased. Their song writing also developed significantly as they moved away from writing catchy love songs to writing hard-hitting lyrics with profound implications. Beyond the recording process, the effects and the lyrics, what was it about what they were actually playing that made The Beatles so great?

In order to fully understand what made The Beatles' music so prolific, it is important to understand all of the musical elements that comprised it. The instrumentation in the majority of their music was quite standard; with the exception of the sitar (a traditional Indian instrument) used in a few of their songs and a few orchestral arrangements, their music primarily featured vocals, guitars, keyboards, bass and drums. Many of their songs were written in simple and familiar structures. However, the harmonies in many of their songs were not so conventional. This paper will explore how The Beatles were able to stay within the confines of diatonic harmony while breaking many of the rules. Examples from throughout their career are used to show a variety of the techniques they employed. The first is the replacement of the chords built

on the supertonic, mediant and submediant scale degrees. Another technique is the use of chords built upon notes that are not found within the scale, often borrowed from the tonic major or minor scale. Additionally, The Beatles used tritone substitutions and chord progressions borrowed from jazz in their music. While primarily still diatonic, their music featured chromaticism that was often accomplished by using augmented and diminished chords taken from out of key. Finally, this paper examines a song from The Beatles' ground-breaking "White Album" to show how many of these harmonic techniques are employed within a single song. This topic is worthy of investigation because The Beatles are considered to be the most successful musicians of all time not just for their lyrics, musicianship, or popularity, but for the entirety of their musical output. While much attention has been devoted to their lyrics and recording techniques, less attention has been given to the harmonies in their music, which are often more complex than they appear. This paper will examine the research question "How was The Beatles' music harmonically innovative?"

"Please Please Me"

From the start of their recording career, The Beatles included harmonies in their music that were more complex than what was commonly found in popular music. The Beatles' second single and title song of their first album "Please Please Me" was The Beatles' first big hit when it peaked at #2 on the UK Singles Chart after being released on January 17, 1963. (The Official Charts, 2011) While the song does sound quite simple, it is not the average 1960s pop single.

Structure		Harmony		# of Bars
	Intro	E | E | E | E	I | I | I | I	**4**
A	Verse	E | E | A E | E G A B^7 E | E | A E | E	I | I | IV I | I ♭III IV V^7 I | I | IV I | I	**8**
B_1	Chorus	IV | ii | vi | IV I | IV V^7 | I | IV V	IV | ii | vi | IV I | IV V^7 | I | IV V	**8**
B_2	Chorus	A | F#- | C#- | A E | A B^7 | E | E	IV | ii | vi | IV I | IV V^7 | I | I	**8**
C	Bridge	A | B^7 | E | E A E A | B^7 | E | A B^7 | E | A^{maj9} B	IV | V^7 | I | I IV I IV | V^7 | I | IV V^7 | I | IV^{maj9} V	**10**
	Coda	E G | C B^7 | E	I ♭III | ♭VI V^7 | I	**3**

Figure 1 summarizes the harmony of the different sections of the song "Please Please Me", written in the key of E major.

The verse consists of a four bar question (antecedent phrase) followed by a four bar answer (consequent phrase). Tension is created in the fourth bar of the antecedent phrase by playing a different chord on each beat ascending quickly through the I, ♭III, IV chords to the V^7 chord B on beat four, an imperfect cadence. All four chords are found in the key of E major with the exception of the ♭III chord G, which is borrowed from the tonic minor. In each of the three choruses, the harmony of the last bar is different. In the first chorus, the final bar consists of two beats of the IV chord A^{maj9} and two beats of the V chord B, resulting in an imperfect cadence at the end of the four bar phrase. The IV chord used is an A^{maj9} chord, an extension of the A triad which adds the 7^{th} and 9^{th} scale degrees, the notes G# and B (both of which are found in the E major scale). This chord, which creates a much richer and more open sound, is predominantly found in jazz and is not commonly found in popular music. In the second chorus the I chord E is

played over the final bar of the consequent phrase. In the third chorus the final bar is similar to the first except that different chord extensions are used. The IV chord A is reduced from an A^{maj9} chord to an A triad, and the V^7 chord B^7 replaces the B triad. The coda features a common jazz turnaround that includes tritone substitutions, discussed later in this paper. The harmony of this song is quite unique, and shows that right from their first album The Beatles wanted to explore using more complex harmonies in popular music.

Replacement Chords

In a diatonic scale the quality of the chord built upon each scale degree follows a specific pattern, based on their position in relation to the tonic (Adams, 2011). While The Beatles' music can be considered diatonic, many of their compositions contain chords borrowed from outside the keys in which they are written.

A common diversion from diatonic harmony found in The Beatles' music is the replacement of the supertonic chord, specifically replacing minor ii chords with major II chords in a major key. Examples of this chord replacement can be found throughout the span of their recording career. An early example of this can be found in The Beatles' third single "From Me to You". The song is written in the key of C major, then modulates to the subdominant key F major during the bridge. In the second-last bar of the bridge the II chord G major is played in place of the ii chord G minor, the diatonic triad that fits over the second scale degree of an F major scale. A slightly later example of this chord replacement can be found in the song "Eight Days a Week" from The Beatles' fourth album "Beatles for Sale". Throughout this song written in the key of D major the II chord E major can be found, used in place of the minor ii chord E minor. An example from The Beatles' final album "Abbey Road" can be found in the song "Because".

Fragmented analysis. It would've been helpful to discuss the use of the major superstructure within a minor harmonic context

The song is written in the key of E major and contains the major II chord F# major. This chord replacement can be found throughout The Beatles' music, from one of their first singles through to songs on their final album.

Similarly, The Beatles' sometimes replaced major III chords with minor iii chord in a major key. An early example can be found in the song "I'm Happy Just to Dance with You" from The Beatles' third album "A Hard Day's Night", written in the key of E major. According to diatonic harmony the chord built on the third scale degree G# should be minor. The verses and choruses do adhere to this rule, however the introduction, bridge and outro do not. In these sections a G# major chord and its extension $G\#^7$ (the sevenths of $G\#^7$ and $G\#\text{-}^7$ are identical) is used in place of the G# minor chord. The only difference between the two chords is the third; In the minor chord the flattened third is a B, taken from the E major scale. The raised third in the major chord is B#, the augmented 5^{th} of E major that is not in the scale. The song does not modulate to another key, however the use of a major III chord (and the augmented 5^{th}) in place of a minor iii chord adds tension to the piece. A later example can be found in the song "Golden Slumbers/Carry That Weight" from The Beatles' final album "Abbey Road". The first part of the medley is written in A minor and the second in C, the relative major. In "Carry That Weight" the major III chord of the tonic C major, an E dominant seventh chord is used in place of the minor iii chord E minor.

Missing sufficient harmonic context

Another chord replacement employed by The Beatles involved the submediant chord, using the major VI chord to replace the minor vi chords in major keys. An early example can be found in The Beatles' third single "From Me to You". The song is written in the key of C major, modulating to the subdominant key F major during the bridge, where a D^7 chord is played. This is the major VI^7 chord of F major, not the vi chord D minor (or the vi^7 chord $D\text{-}^7$), the diatonic

SOME OF THIS ANALYSIS SEEMS FORCED OR EVEN INCORRECT. SCORES WOULD HAVE HELPED.

triad found on the sixth degree of an F major scale. Another example can be found in the song "It Won't Be Long" from The Beatles' second album "With The Beatles", written in E major. The major VI chord $C\#^7$ can be found in the bridge, used in place of the minor vi chord C#- (or $C\#\text{-}^7$). In addition to a major II chord used in place of a minor ii chord in the bridge, this gives the song written in a major key an even more "major" sounding tonality by replacing the minor vi chords featured prominently in the rest of the song with major VI chords. Both "From Me to You" and "It Won't Be Long", used as examples of replacing the submediant chords also include major II chords that replace minor ii chords. While changing the quality of the submediant is far less common in The Beatles' music than changing the quality of the supertonic, it is interesting to note that a replacement of the submediant was often accompanied by replacing the supertonic.

Borrowed Chords

Another harmonic technique employed by The Beatles was to use chords built upon notes not found within the scale. These out of key notes that the chords were built upon were often "borrowed" from the tonic minor, the most common example of which is the use of the ♭III chord in a song written in a major key. As mentioned previously the title song from The Beatles' first album "Please Please Me" features this substitution. Another example is found in the title song of the album "Sgt. Pepper's Lonely Hearts Club Band", The Beatles' ground-breaking eighth studio album. In the chorus of this song written in G major the ♭III chord B♭, borrowed from the tonic minor, is used. Likewise, there are songs written in major keys that use the ♭VI chord. An example can be found in the song "I Saw Her Standing There" from The Beatles' first album "Please Please Me". In the chorus of this song written in E major the ♭VI chord C is used,

borrowed from the tonic minor. This substitution is also found in the song "It Won't Be Long", also written in E major and featuring the same ♭VI chord borrowed from the tonic minor.

Using the ♭II chord is far less common because the ♭II is found in neither the major nor the minor scale. One example of a ♭II chord can be found in the song "Do You Want to Know a Secret" from The Beatles' first album "Please Please Me". This song begins with a four-bar introduction in E minor before modulating to the tonic major E major. In the introduction the chords played in the first three bars are E minor, A minor and G major respectively. As the piece modulates to E major in the final bar, an F chord is played over two beats followed by a B^7 chord held over the last two beats. The B^7 chord played on the last two beats indicates that the song is modulating to E major, as B^7 is the dominant V^7 chord of E major are firmly in the major key. However, the F major chord is found in neither E major nor E minor because the ♭II scale degree is not found in either key. This chord is very dark-sounding because the ♭II scale degree is only found in the two most minor of the seven church modes, the Phrygian and Locrian modes (Wharram, 2005). The ♭II chord at the close of the minor keyed introduction contrasts the major keyed section that begins with the next chord, adding tension as the song modulates keys.

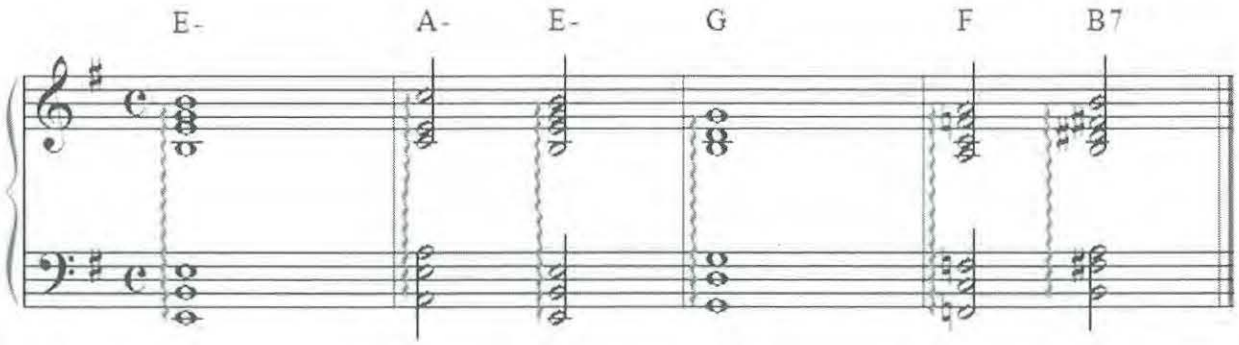


Figure 2 shows the chord progression of the introduction to "Do You Want to Know a Secret".

Tritone Substitutions

The Beatles made use of tritone substitutions and chord progressions borrowed from jazz music. In the third and second to last bars of the coda in "Please Please Me", the final lyric "you" is sung on the note B. This note is the fifth of the I chord E, the third of the ♭III chord G, the major 7th extension of the ♭VI chord C and the tonic of the V^7 chord B. The vocal melody then drops to G# sung over an E chord in the final bar, creating a perfect cadence from the V^7 chord B^7 to the I chord E. The I-♭III-♭VI-V^7-I chord progression in the coda is a variation of the I-vi-ii-V^7-I chord progression commonly found in jazz music, created using tritone substitutions. The ♭III chord G is a substitution for the vi chord C#-, while the ♭VI chord C is a substitution for the ii chord F#-. Tritone substitution involves substituting a chord with the chord that is separated by an interval of an augmented fourth or a diminished fifth, known as the tritone interval. (Wharram, 2005)

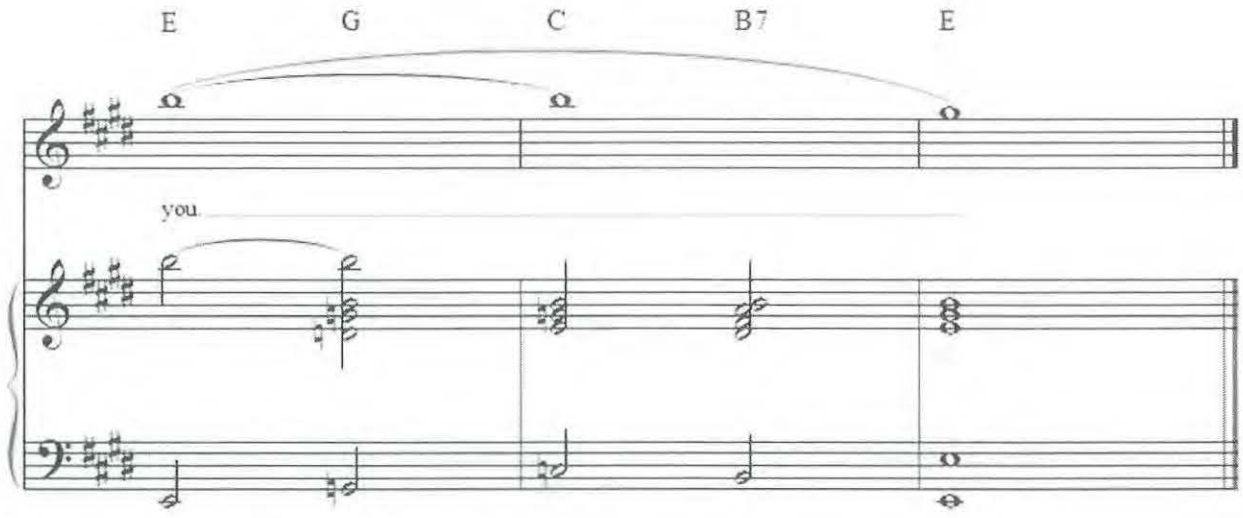


Figure 3 shows the coda of "Please Please Me".

Chromaticism

Many of The Beatles' songs feature chromaticism, which are chromatic passing tones and chords interspersed between the diatonic scales and chords of the songs' home keys (Wharram, 2005). In the song "Do You Want to Know a Secret" written in E major, there is a chord progression in the chorus that descends chromatically through iii- ♭ iii-ii- ♭ II-I chords. By using the ♭ iii chord as a tritone substitution for the vi chord and the ♭ II chord as a substitution for the V^7 chord, this progression is a chromatic variation of the vi-ii-V^7-I progression commonly found in jazz.

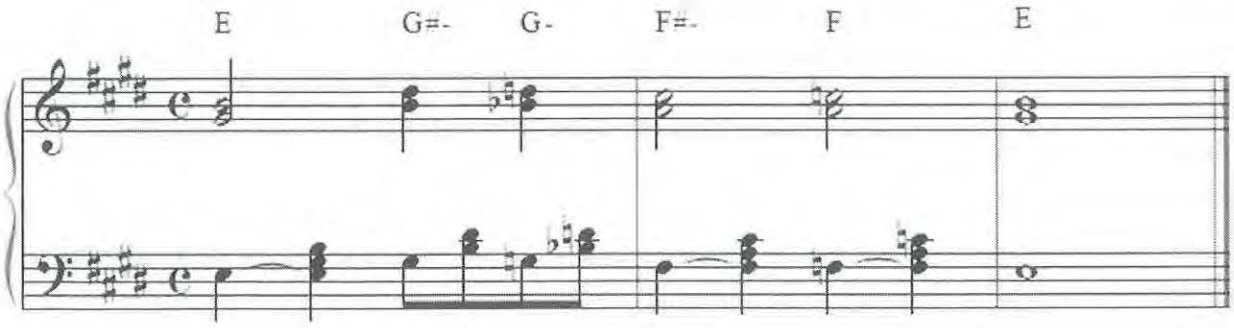


Figure 4 shows the chromatic chord progression in "Do You Want to Know a Secret".

Conversely the song "Sun King", also written in the key of E major, features an ascending chromatic passage through the ii- ♭ iii-iii chords that resolves to the I chord. The ascending chromatic progression coupled with the rhythm of the three chords being played as quarter-note triplets over two beats is used effectively to build up tension before resolving to the I chord.

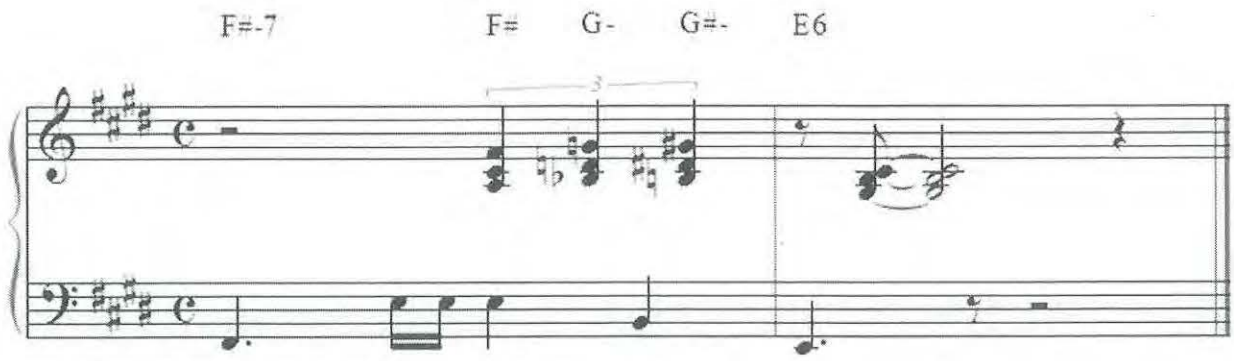
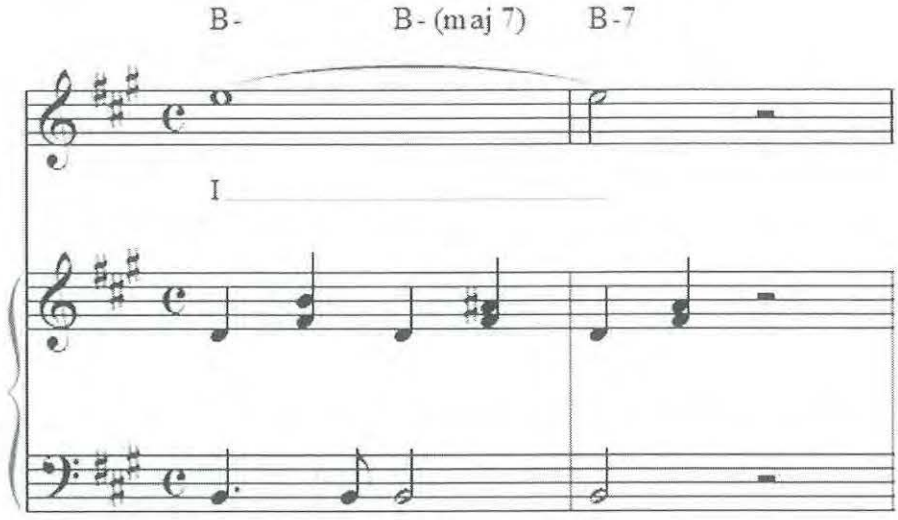


Figure 5 shows the ascending chromatic passage in "Sun King".

Source ?

However, it is the subtlest uses of chromaticism that evokes the greatest emotion in the song "I'll Be Back". In the bridge of this ballad written in the key of A major, a beautiful descending chromatic line is played moving through the ii-ii^{+7}-ii^{7} chords. Over this subtle descending chromatic line in the harmony the word "I" is sung on an E and held for six beats, extending all variations of the B^{-} triad further by adding the perfect eleventh.



Score excerpt

Sources ?

Figure 6 shows the descending chromatic line in the harmony of "I'll Be Back".

Augmented and Diminished Chords

Some of The Beatles' music features augmented and diminished chords taken from outside of the keys that the pieces are written in that are often used to create chromatic lines within the harmonic accompaniment. The song "From Me to You", written in the key of C major, features both augmented V and ♭VI chords. These chords are not in key as there are no augmented triads built on the notes of a major scale in diatonic harmony (see appendices). The ♭VI+ chord A♭+ is used in the second bar of the coda as a chromatic passing chord from A- in the previous bar to C in the next bar. The notes C and E are common to all three chords; A♭ is the only note that is out of key and can be considered a chromatic passing tone as the notes that differ between the three chords pass through A-A♭-G.

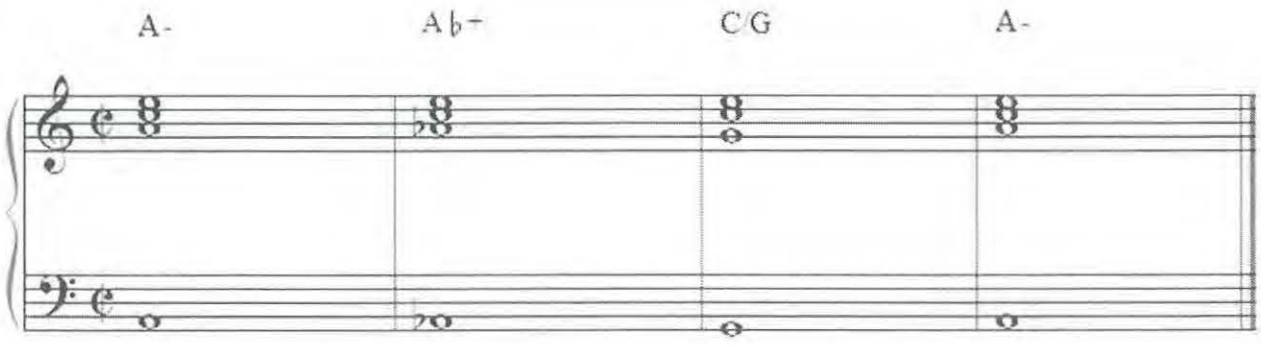


Figure 7 shows the descending chromatic progression in the coda of "From Me to You".

The song "It Won't Be Long" contains examples of both augmented and diminished chords taken from outside the tonic key E major, used to create chromaticism in the harmony. At the close of the introduction, the #iv° chord A#° is used in passing from the IV chord A to I chord E. The only difference between the A and A#° triads are the tonic, A and A# respectively, while the third and fifth, C# and E, are the same. The #iv° chord is used to move chromatically in the bass of the harmony through A-A#-B as part of the IV-#iv°-I chord progression.

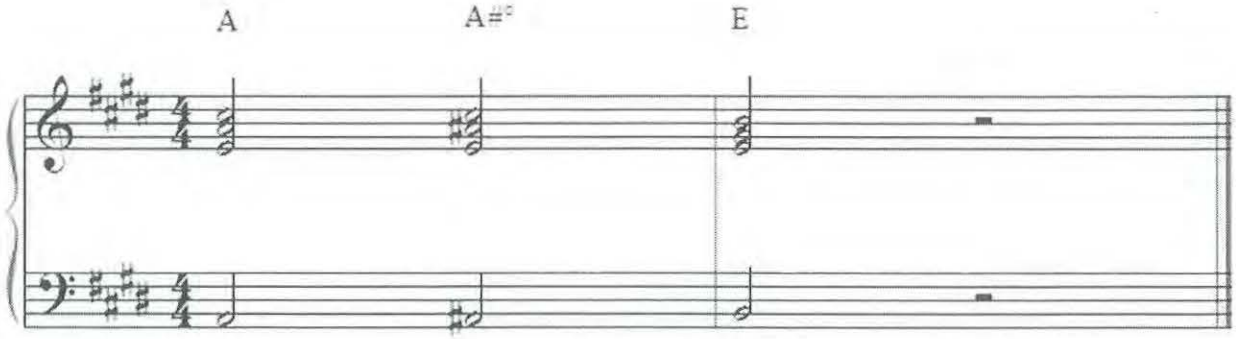


Figure 8 shows the ascending chromatic line in the bass in "It Won't Be Long".

In the bridge of "It Won't Be Long" there is a four-chord progression E-D#+-B^{-6}/D-C#^{7} used to create two simultaneously descending chromatic lines separated by the interval of a major third. The note B is held on the top of every chord as one of the lines descends in the bass from E to C# and another descends above from G# to E#. The I-#VII+-v^{6}/iii-VI^{7} progression is not diatonic; however it is an example of how The Beatles used non-diatonic chords in their otherwise diatonic music to create chromaticism. The unusual harmonies present in this song are examples of how The Beatles created music that was harmonically innovate.

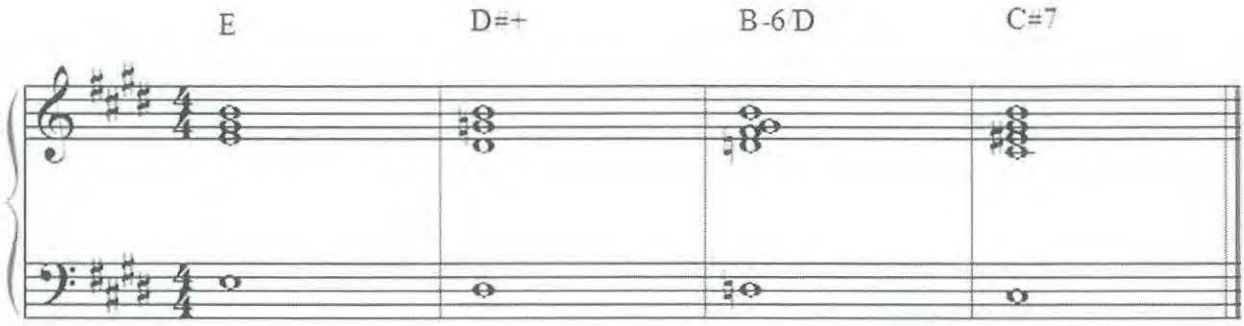


Figure 9 shows the descending chromatic harmony in the bridge of "It Won't Be Long".

"Julia"

The song "Julia" from the album "The Beatles", also commonly known as "The White Album", is a soft acoustic piece with a very minimalist approach. The song is written in the key of D major, however the tonality is often ambiguous as there are several chords used in the song that are not found in the home key. The chords played in the introduction to the song are the I iii V and vi^7 chords, all of which are in key. In the first two bars of the verse the I and vi^7 chords are played again, followed by the v and v^7 chords, which are borrowed from the tonic minor of D. In the next two bars the VI^7 chord is played; this major chord is out of key as the diatonic triad built on the submediant is minor, not major. This chord is not borrowed from the tonic minor because the submediant is flattened in a minor key. The only note that is altered in this chord is the mediant; the tonic of the home key D is raised to a D#. The use of this major chord alters the tonality of these two bars; it could be argued that the song has modulated to B major in this section, as the only notes sung in the melody are B and F#, the tonic and dominant of that key. In the final two bars of the verse, the IV^9 chord G^9 moves to the iv^7 chord G^{-7}, a chord borrowed from the tonic minor. Three notes are common to both chords; the tonic G, the fifth D and the seventh F. In the G^9 chord, the two notes that differ are the third B and the ninth A, accompanied by an A sung in the melody. In the G^{-7} chord the ninth is omitted and the third is flattened to a B ♭, and the vocal melody moves up a half step from A to B ♭. This chord change shifts chromatically along with the melody that it is accompanying, as the only difference harmonically between these two bars is the shift from an A and a B, each moving up and down respectively by a half step to a B ♭ in the following bar.

Figure 10 shows the chromatic change in the harmony that accompanies the chromatic shift in the vocal melody.

In the twelve-bar bridge the song modulates to the mediant of D major, the key of F# minor. The chords used in the bridge are F#-, B-, C#- and D, all of which are found in the new home key. The melody is in both F# natural minor and the Dorian mode as both the ♭ VI and VI scale degrees D and D# are sung in the melody during the bridge. There is also a lot of chromaticism present in the bridge, the first instance of which is a move from the iv^7 chord $B-^7$ to the iv^6 chord $B-^6$. The B minor triad is common to both chords, and the only difference between them is the seventh and sixth respectively, which descends chromatically from A to G#. In the final four bars of the bridge a descending chromatic line is played within the extensions of an F#- chord. In addition to the notes of an F#- triad F#, A and C#, the descending notes played in each of the four bars are the ninth G#, the raised sixth D# (from the Dorian mode), the natural sixth D (from the natural minor) and the fifth C#. The C# played in the last bar of the descending line is the leading tone of D, and the notes A and F# are common to both the D and F#- chords.

The leading tone C# helps to transition smoothly into D major as the piece modulates back to the home key in the next bar.

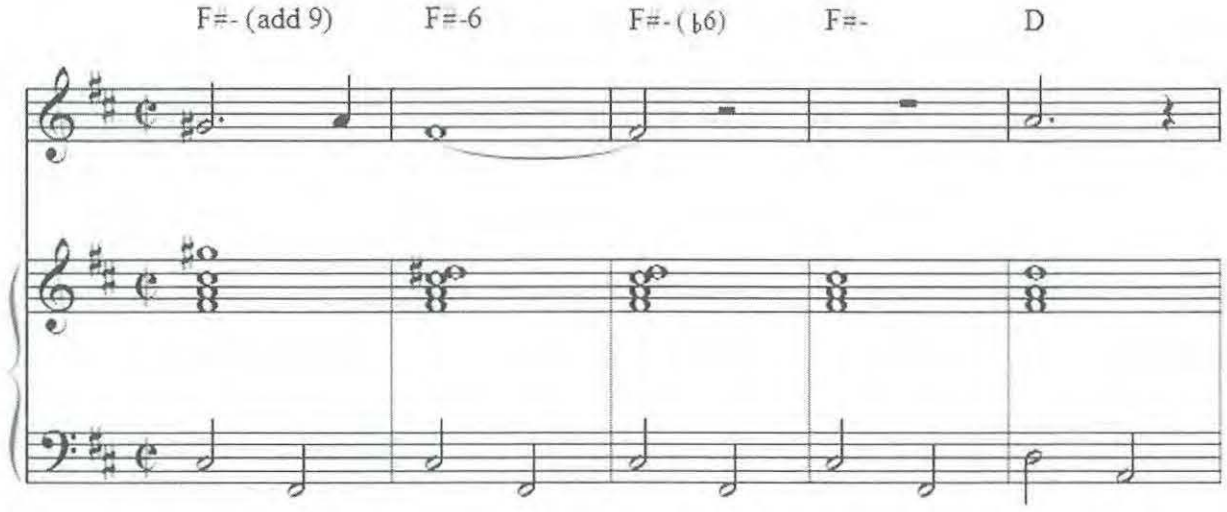


Figure 11 shows the extensions of the F#- chord that descend chromatically before modulating back to D major.

Although the harmony of this song is quite unusual, it is still diatonic. The key is at times ambiguous; however there is a rational for the presence of many of the out of key chords and notes in the song as they are used to create chromaticism that often moves smoothly into the next bar. The song "Julia" is an example of how The Beatles experimented with unusual harmonies.

Conclusion

Of the many contributions that The Beatles' made to popular music, a prominent one is that their music was harmonically innovative. The Beatles' use of harmonic techniques and progressions borrowed from jazz and altered or out of key chords to create chromaticism allowed them to create dissonances in their music that still managed to sound natural and pleasant. By only breaking some of the conventions of diatonic harmony, they were able to be harmonically

innovative while keeping their music commercially viable. Their recording techniques, lyrics, technical skills and melodic improvisation were quite simple at the commencement of their career and developed further as they continued to write and record music. However, the harmonies they used in their music were complex by standards in popular music right from their first album, and the innovation continued throughout their career. Their contribution to Western Popular music is unparalleled. Fans worldwide tried to imitate their sound and image, causing a phenomenon known as "Beatlemania". (Kamien, 2008) Their music has influenced musicians across a diverse range of genres, an influence that still exists today. Singer-songwriter Bob Dylan once said of The Beatles "…we had the radio on, and eight of the Top 10 songs were Beatles songs...'I Wanna Hold Your Hand,' all those early ones. They were doing things nobody was doing. Their chords were outrageous, just outrageous, and their harmonies made it all valid... I knew they were pointing the direction of where music had to go." (Dylan, 2011) Critically acclaimed Jazz guitarist John Scofield said "Like a lot of people, I was really influenced by The Beatles… I'd say they impacted my music in several ways, but most importantly that they inspired me to keep going and work harder. It was quickly obvious that guitar playing was "cool" and a pathway to personal success and satisfaction." (Scofield, 2009) Brian May, guitarist of the hugely successful rock band Queen said "I don't think anybody comes close to The Beatles." (May, 2011) If The Beatles' had not broken up in 1969, who knows what new and exciting music they would have created together into the next decade. Nonetheless there is no uncertainty in the fact that to this day, The Beatles are the best-selling musicians of all time. (The Official Charts, 2011) There has never been, and may well never be another band quite like The Beatles.

MORE SYNTHESIS NEEDED
AND LESS NEW INFORMATION.

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Appendix

Diatonic Harmony

In a major scale there is a specific set of chords that can be built upon each scale degree using the notes of the scale which are known as diatonic triads. (Adams, 2011) In a major scale, the quality of the chords built upon each scale degree always follows the same pattern, summarized in the table below:

Scale Degree	Tonic	Supertonic	Mediant	Subdominant	Dominant	Sub-mediant	Leading Tone
	I	ii	iii	IV	V	vi	vii°
Chords Extended to 7^{th}	I^{+7}	ii^{7}	iii^{7}	IV^{+7}	V^{7}	vi^{7}	$vii^{ø7}$
Quality of Chord	Major	minor	minor	Major	Major	minor	diminished

The same rule applies to the minor scale. The pattern is the same as it is for a major scale, but the submediant now becomes the tonic, giving the relative minor to that major scale. The qualities of the chords built upon each scale degree are summarized in the table below:

Scale Degree	Tonic	Supertonic	Mediant	Subdominant	Dominant	Sub-mediant	Subtonic
	i	ii°	III	iv	v	VI	VII
Chords Extended to 7^{th}	i^{7}	$ii^{ø7}$	III^{+7}	iv^{7}	v^{7}	VI^{+7}	VII^{7}
Quality of Chord	minor	diminished	Major	minor	minor	Major	Major

SOME GOOD WORK BUT SOME OF THE ARGUMENTS APPEAR A LITTLE FORCED AND THERE IS NO MENTION OF MUSICAL DEVELOPMENTS (IN ROCK AND POP) GOING ON AT THE TIME.

REFERENCE IS MADE TO 'JAZZ HARMONY' BUT NO EXAMPLES ARE SHOWN.

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