

Lecture 5: rhythm and phrasing

Rhythm is the way that sound is ordered into structured patterns (Cooper & Meyer 1960). It is accomplished by all of the instruments in a piece, the vocals, and by the kinds of melodies that they play. For this reason, rhythm is illusive for purposes of analysis.

Rhythm or beat is what we often think about as central to popular music and the reason why people like to mark out time is has fascinated psychologists and biologists. Some suggest that it is related to the way that humans organise their experiences of the world around temporality. The brain seems drawn to mark off time. Although as we discussed in earlier chapters, it is interesting that we generally do not consider the ticking of a clock or the regular clicking of a machine as having a rhythm. Therefore, we have to accept that what we even consider as rhythm is not necessarily in the sound itself.

In this section we look at a number of ways that we can usefully describe rhythm and beat drawing on Cooke (1959) and Van Leeuwen (1999). The first of these relates rhythm to associations with kinds of bodily movements and the second looks for clues in the rhythms of speech.

We can think more clearly about rhythm through three of its aspects (Cooper & Meyer 1960): “pulse,” “accent,” and “meter.” Pulses are like the ticks of a watch. In this case pulses could be the bass drum, although they could also be notes produced by an instrument and the way that these are clustered. Accent is difficult to define but means roughly where the emphasis is placed—for example, which pulse is played with greater force. Meter describes the number of pulses between accents. In a waltz there are three pulses between accents as in “1-2-3, 1-2-3.” In popular music there are usually four pulses as in “1-2-3-4, 1-2-3-4.” In popular music the pulses are usually laid down very clearly by the drums. This is done with a combination of bass drum, snare drum, and high hat cymbal. Below is a schema for representing a drum pattern for a four-beat pop tune. “H” is the high-hat cymbal, “S” the snare drum, and “B” the bass drum:

1	2	3	4
H	H	H	H
	S		S
B		B	

This pattern is the basis for most dance music. The bass pulses on beats 1 and 3. Reggae music also uses four beats but, in contrast, the accent is on beats 2 and 3, which creates a much more staggered, creeping forward motion.

If we imagined a bass drum pulsing on all four beats we get a sense of only counting out the pulses rather than a forward motion. The forward motion is created in the above example through the energy shift created by placing the higher pitched snare drum on beats 2 and 3 and through the use of the high hat cymbal, which gives the effect of the two drum pitches sliding into each other. Listen to any dance music to hear this effect. In music based on 3 pulses, as in a waltz, there is a sense of hesitation as the two pulses follow the accent on the first beat. This creates a sense of lightness and side-to-side motion rather than forwards. Jazz musicians will often give a three pulse feel to four-pulse pop songs when playing their own versions of them, to give them space and lightness.

In jazz music it is not unusual to find five or even seven pulses, which create more unsettling rhythms. Since, in popular music, we normally find four pulses, we can assume that it is generally about moving forward rather than floating.

Rock music often places even greater accent on beats 1 and 3 through two half-pulses on the bass drum. This is the effect on Queen's famous *We Will Rock You*. This double beat creates more of a stomp than the lighter step of dance music where there is always movement to the next sound. The rhythm becomes much more anchored to the certainty and weight of the bass drum. Imagine *We Will Rock You* with only one bass pulse instead of two.

However, while it is possible to describe some of the kinds of rhythms created by drums and cymbals, instruments and vocals can play the same role. A guitar can emphasise accents on certain beats. Where the vocalists places the emphasis on individual words can create a solid or unsettling rhythm.

One way to think about the combined effect of percussion, instruments and vocals creating rhythms is offered by Cooke (1959) who showed that we can relate the metaphorical meanings of these rhythm sounds with the human activity of walking. Walking is normally smooth and gently rhythmical, moving forward. It can also be bouncy, possibly with a sway, or with heavier or lighter stomping. The rhythm for dance music we described above might be thought of as more driving through the slide between the higher pitch high hat and lower

pitch bass drum. The weight of the heavy bass drum suggests a heavy foot fall and the forwards movement is created by the slide suggested by the high-hat cymbal to the higher pitch of the snare drum. Listen to any dance track and think about the way the sounds suggest a particular kind of walking.

Of course rhythm can also be quickened or slowed. In general quicker rhythm is seen as more animated. A slower rhythm with emphasis on even steps can imitate lazy trudging. In jazz, the slower tempos generally combine with a complete lack of bass drum creating a lighter step. Much of the beat may be created by a combination of a soft brushed snare drum and a walking bass line (one which plays a note on each pulse or beat). This creates a much smoother groove feel. News readers might read with a fast tempo to suggest urgency and immediacy. Those who have listened to the commentary of horse racing will be aware of the way that fast tempos can be used to convey excitement and action, even where what we have is five horses taking quite a while to run around a circuit, which visually looks very much like the last race and the next one.

Quicker or slower rhythms can affect the kinds of notes that are played. A minor ascending melody played slowly can be an outward admission of pain. Played quickly however, it can become hysteria.

Rhythms can also be jerky, as in walking with a limp or struggling to walk. Jerky rhythms at a faster tempo can create a lot of tension and energy (Cooke 1959, p. 100). But at a slow tempo the jerky rhythm can create a dragging feeling. Such rhythms are rarely found in popular music, however. These techniques were utilised in the earlier Walt Disney cartoons to express the character and mood of their animals as they moved. So there is meaning potential in regular versus irregular. Regular rhythms can suggest the impersonal. News readers speak in regular rhythms to suggest something official. Literally it is regulated. This gives a sense of the removed of personal inflection and creativity.

From these observations we can ask then how a piece of music asks us to move. Do we move quickly forward, from side to side remaining in same place? Do we stomp or tread lightly? Do we skip happily or do we hesitate perhaps? All of these can have meaning potentials which will be realised in combination with other semiotic choices. A hesitating rhythm can suggest caution, or simply coolness through lack of haste. A swaying side to side rhythm can mean lack of need to move forward, contentment or conformity. So this kind of rhythm would be unsuitable for a march which will contain clear indications of a build of energy and anticipation through a snare roll.

Some rhythms, in Cooke's sense could be said to be more artificial than others. Walking and running and shifting from one foot to the other have a binary nature. Triple time is therefore not a natural rhythm. Artificiality can suggest high status. In jazz 4/4 time songs are often played with a triple time feel called 6/8 to make them lighter and precisely to avoid the constancy of the binary rhythm.

It is important to think about the way the vocalist relates to the rhythm created by the instruments. We can ask whether they embrace the time, allow it to govern them or struggle with it. In the example of the nursery rhyme *The Grand Old Duke of York* below the words are placed on the accents. You will hear this is you tap out the beats and sing the words.

	1	2	3	4
The	Grand old	Duke of	York	He

1	2	3	4
Had ten	Thousand	men	

Such an alignment of words to beat aids collective recitation. But it also suggests lack of trouble and even conformity to the beat. In contrast here we see a classic blues type line placed over the four pulses.

1	2	3	4
This w	oman treats me	So bad	

Here the words are not placed directly on the beat. The blues music while having a strong rhythm which usually suggests a slow forwards walk uses this technique to communicate trouble, lack of conformity to the rhythm as the singer appears to sing in their own time, not obeying the accents.

Both Tagg and Van Leeuwen have given much thought to the meaning of musical time. Van Leeuwen has discussed how the shift to music being dominated by metronomic

time is associated with the move to modernity and the rise of the clock and mechanisation. Music before this was not subject to metronomic time. Music without metronomic time was the favoured music in the church of the middle ages. Van Leeuwen suggests that this sound itself signifies eternity. He suggests that it was only later when power passed into the hands of the merchant classes that measured time came to dominate (in what we now call classical music). This was also a signifier of calculability and quantification that were so central to capitalist industrial society. When we now hear such music, for example certain forms of church music we experience this as mystical and spiritual, not regulated and structured and therefore mechanical. Bands such as Clannad are able to draw in this effect using sections of music without clear time to connote the ancient and pre-modern.

In the context of the blues singer Tagg suggests that music allows us to express our attitudes towards the regulation of time and our social worlds. The bass instruments create the clockwork beat against which we must all live. The other instruments and the vocals while having no real control over time are able to use syncopation to locate themselves creatively against this time. And vocalists and lead instruments can shout out above this time. Of course in some forms of music, Tagg notes, there will be the opposite and all the music will be swept along with time. In rave music machine like repetitive bass and drums encourages people to give themselves up to time regulation. To this are added euphoric high pitched minor 7th notes moving in small pitch ranges (Tagg, 1984: 31-2). These sounds are normally softly synthesised and sound otherworldly through association. If we think about the work of psychologists who believe that the brain likes marking out time, the pleasure lies in conformity to time along with the euphoria of the pitches, the 7ths and the ethereal synth sounds.

Some melodies can be extremely emotionally expressive, using a wide pitch range but also conform considerably to time. Unlike in jazz this allows the emotions to sound less problematic and less like trouble and regret. We can see this in Queen's *Somebody To Love*. First here is the melody:

Can an---y bo----dy find me Somebo-dy to love
 5 ↑ 1 → 1 ↑ 2 → 2 ↑ 3 ↑ 5 ↓ 1 → 1 ↓ 7 ↑ 6 ↑ 1

The melody takes place over a whole eight notes which rises from the 5th below the 1st note to the fifth note above. All are major happy notes and much of the melody is comprised of

upward moving positive outbursts of energy, even through the lyrics suggest something more melancholy.

Looking at the way the notes relate to the beat we find an emphasis on lack of trouble with time and with regularity. There are no deeper troubles here therefore.

	1	2	3	4
can	a-----ny	Bo-----dy	fi-----nd	Me-----

1	2	3	4
some	body to	love-----	-----?

Semiotics of sound: phrasing

Where melodies rise and fall quickly we can get bursts of emotion. *Ain't No Sunshine* has a gentle rise and fall in its melody. This gives a sense of an emotional outburst, not abrupt, but an exclamation, nevertheless. In *Summertime* by Billie Holiday there are long extended rises and falls in pitch, often with extended gentle decreases in pitch over a word. Here there is not so much an outburst but an emotional lingering. Such songs are *about* emotion.

In music the terms attack and decay are used to describe the way sounds emerge and diminish. We can use this to think about the rises and falls in the phrasing of a melody. A sound or melody can have a long or short attack and a long or short decay. We can illustrate this by the following:

Sound A



Sound B



Sound A has a short attack and a long delay compared to sound B which has a much more gradual attack and short decay. The sound of a bell being struck would have a very short attack and a long decay. When we listen to the way singers produce their phrases we can think about the attack and decay of their syllables. Are these short bursts or do they have much longer decay? So the way that Billie Holiday sings the words *Summertime* would be characterised by sound A.



Summer t- -i- - m- - - e

The long decay suggests lack of haste and relaxation, a lingering in the emotion. If the notes are major notes this could be dwelling in pleasure and using minor notes could mean trapped or wallowing in sadness, loss or lack of energy. Singers that use shorter bursts of attack and decay in contrast can suggest energy, excitement or disquiet. Singers-songwriters such as David Gray use this on songs like *Babylon*.



Fri- -day night and I'm go- -ing no where

There is something nervous about this kind of phrasing that helps to connote disquiet or trouble in the melody, but nevertheless energy. Singer songwriters should be generally quite cross with the world, or have some kind of interesting or profound observation to make.

Van Leeuwen (1999) has noted that these kinds of shorter phrases are associated linguistically with sincerity, certainly, weight and therefore with authority. We can imagine the effect if someone were to speak to us in bursts of a few words. This is common to the way that news readers speak for example. In the case of news readers it can also connote the urgency and immediacy of news. We might therefore be less surprised to hear folk singers using such short bursts. Of course the meaning of such short bursts, whether loud or soft, major or minor etc, will influence the meaning.

The opposite case where singers produce longer lingering statements suggests slow burning internal emotion rather than sincerity or authority. Those who speak with authority seldom use long emotional outbursts as in *Summertime*. While a jazz singer might be rather troubled due to the way the world treats them and be emotionally engaged or tortured by this they do not express urgency, attitude or authority in the same way. In the two forms of music trouble is connoted by different semiotic features.

In the vocal line of *Anarchy in the UK* below we also find longer notes. But here the meaning is created by the emphasis on the rapid decay of the phrase. This gives the impression of exclamations and the opposite if the lingering decay of *Summertime*. The longer attack also gives the impression intensity and confidence. Of course much of the way meaning is created here lies in voice quality which we shall come on to shortly.



 I am an an---- ti christ , I am an an ---arch-ist,