

Lesson 14

The Repeating Pattern of Beats

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Course	Read & Play Music
Book 1	Read and Play Simple Tunes
Part 2	Time
Lesson 14	The Repeating Pattern of Beats

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LESSON 14:

THE REPEATING PATTERN OF BEATS

In the last lesson we learned about beats.

Well, it turns out that all beats are not made equal. Some are stronger and some are weaker.

It's a bit like when you speak words. Some of the syllables are stronger than others. For example, when you say 'zebra, you emphasise the first syllable, 'ze-'. But when you say 'giraffe', you emphasise the second syllable, '-raffe.

The mixture of strong and weak beats in music creates a repeating pattern. Let's take a look at that now.

MUSIC THEORY

BUILD YOUR KNOWLEDGE

We learned earlier that music has a *regular pulsing beat*. This is true of nearly all European/American music of the past 500 years, from church music by English composers in the time of King Henry the Eighth, to the latest American rap music, and everything in between.

Another feature common to this vast body of music is that *the beats usually occur in a repeating pattern*. The music of Mozart has a repeating pattern. So does every Broadway musical, every Beatles album, Scottish bagpipe tune, Country Western song, Israeli dance tune, and so on.

The concept of a repeating pattern of beats is so embedded in our musical culture that we can hardly imagine music without it.

So, what is a repeating pattern of beats?

Let's start with an everyday example.

An everyday repeating pattern of beats

There's a repeating pattern of beats that was familiar up until 50 years ago: a steam train. When a child talks of a 'choo choo train', he is imitating the sound made by the steam engine as it drives the wheels. Listen to this recording of a steam train passing by:



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The train makes a 'choo' sound, over and over, and this creates a beat. But do you hear how the first beat in every 4 is a bit stronger than the others?

Perhaps when you were little you played at being a steam train making a 'choo choo' sound, with the occasional 'woo-woo' as the train blows its whistle. You may have instinctively made the first 'choo' in every 4 a bit stronger than the others.

Make a train sound now with a repeating pattern of beats. Like this:

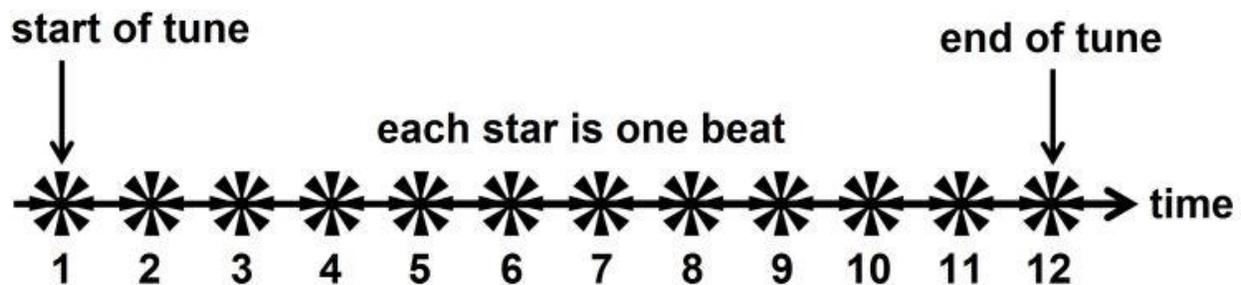
CHOO choo choo choo - **CHOO** choo choo choo - **CHOO** choo choo choo

Demonstration of beats with *no* repeating pattern

Now let's see how this applies in music.

First I'm going to have you create some beats with *no* repeating pattern, just like you did in the last lesson. Then we'll create some beats that *do* have a repeating pattern so you can experience the difference for yourself.

Here again is our diagram illustrating 12 beats in a piece of music. I've numbered the beats from 1 to 12:



Point to each star in turn, starting from the left. As you point to a star, call out its number: 1, 2, 3 and so on up to 12. Make sure you point and count regularly like the ticking of a clock.

Do that now.

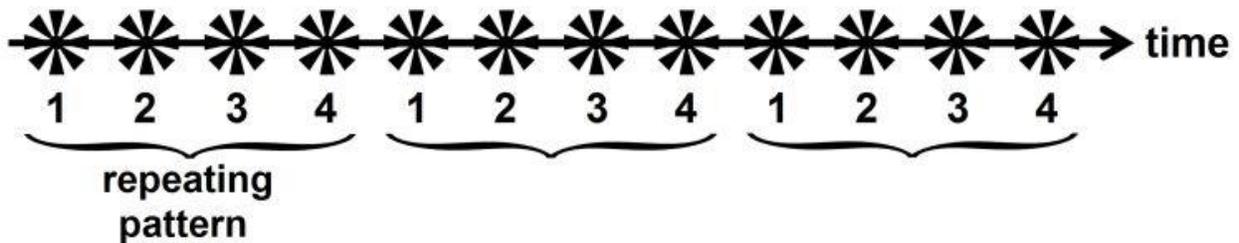
Good. You created beats with *no* repeating pattern.

Reminder: Printed music does not actually use stars. I'm using them in these diagrams just to introduce the concept.

Demonstration of beats that *do* have a repeating pattern

And now for a repeating pattern of beats.

Here are our 12 beats again, but notice that I've numbered them differently: '1 2 3 4', repeated three times over:



Point to each star in turn again, but now call out the new numbers as you point: '1 2 3 4', three times over. Do that now.

Now do that again, but say each '1' a bit more strongly than the '2 3 4', like this:

ONE – 2 – 3 – 4 – **ONE** – 2 – 3 – 4 – **ONE** – 2 – 3 – 4

Make sure you keep pointing and counting regularly like the ticking of a clock.

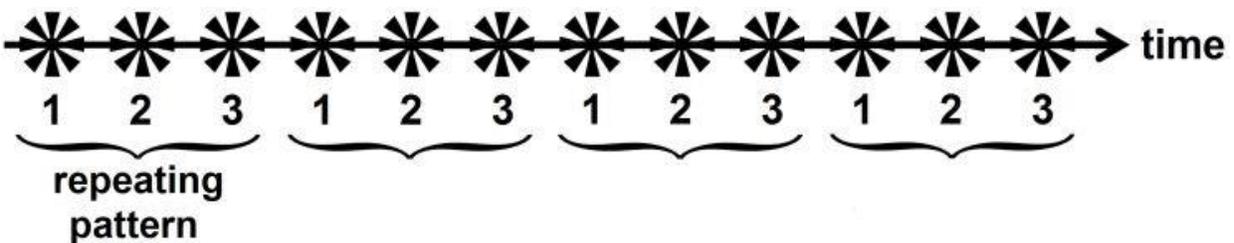
Good. You created beats with a repeating pattern. This is another step in developing your musical skills.

Demonstration of beats that have a *different* repeating pattern

I had you count a repeating pattern of 4 beats. That raises the question, why did I pick 4? Why not 3? Or 5?

My answer is, because 4 beats is the most common repeating pattern in all of music.

The next most common repeating pattern is 3 beats, so let's do that now. Point to the stars below and count '1 2 3' over and over, as shown:



Now do that again, but say each '1' a bit more strongly than the '2 3', like this:

ONE – 2 – 3 – ONE – 2 – 3 – ONE – 2 – 3 – ONE – 2 – 3

Make sure you keep pointing and counting regularly like the ticking of a clock.

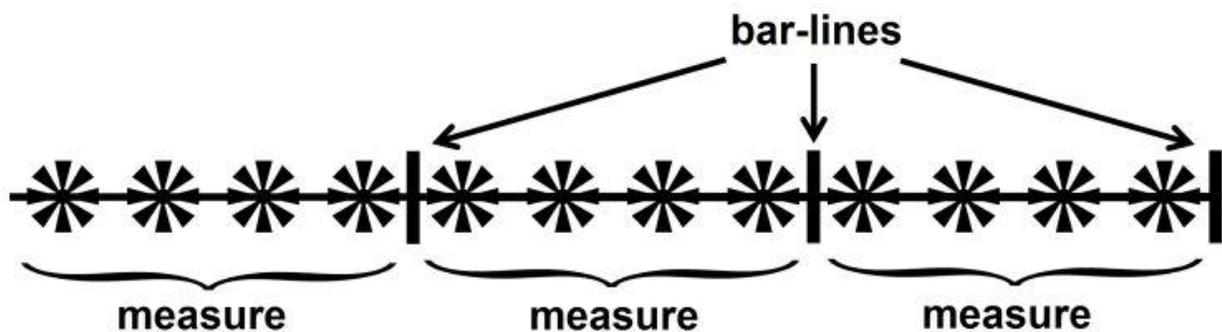
Other repeating patterns

You've learned that most music has a repeating pattern of 4 beats, or a repeating pattern of 3 beats.

You will meet other repeating patterns when you get to **Book 3: Read and Play Tunes With Fascinating Rhythms**. For now, we're going to work with just the two you created above: the repeating pattern of 4 beats, and the repeating pattern of 3 beats.

Showing the pattern in printed music

When a musician is reading and playing music, he needs to see at a glance where one group of beats ends and the next one begins. That is done using vertical lines called **bar-lines**. The bar-lines separate the music into segments, and each segment is called a **measure** or **bar**:



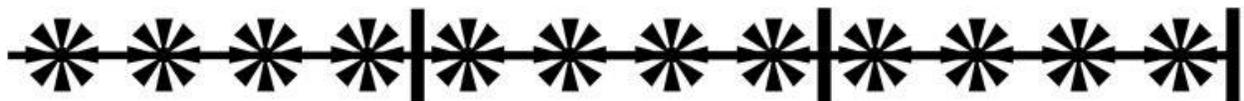
This piece of music has a repeating pattern of 4 beats.

Definition: **bar-lines** are vertical lines that divide the music into sections according to the repeating pattern of beats in that piece of music.

Definition: a **measure** (British name: **bar**) is the section of music between two bar-lines. Usually, every measure has the same number of beats as defined by the repeating pattern of that piece of music.

(I'm going to use the term 'measure' since it seems to be in wider use than 'bar'.)

The diagram above shows a piece of music with 4 beats per measure. As I mentioned, the other commonly used pattern is 3 beats per measure. Here are those two patterns next to each other so you can compare them:



4 beats per measure



3 beats per measure

Keeping time

When you are playing or singing a piece of music, it's very important that you're aware of the beat and that you know exactly which beat you have reached as you're playing the music. This is particularly true if you are playing or singing with other musicians.

This is called 'keeping time'.

Definition: **keeping time** means (a) being continuously aware of the beat, and (b) always knowing which beat you have reached in a piece of music you are playing or singing.

Have you ever seen an orchestra, perhaps a school orchestra, where one of the players starts playing at the wrong time? Or maybe he looks around in puzzlement not knowing when he is meant to play? He didn't do very well at keeping time.

Have you ever seen a band playing, where a number of the musicians are sitting doing nothing and then suddenly they all start playing at exactly the same time? I saw Duke Ellington and his band in Edinburgh many years ago, and I still remember the moment when the whole band suddenly erupted in a blaze of sound. There was nobody directing them: the Duke had not yet walked on to the stage. How did they do it? They must have been very good at keeping time.

So, keeping time seems to be a skill worth learning. And you are about to learn it.

Counting

A moment ago, I had you count the beats aloud:

- ‘ONE – 2 – 3 – 4 – ONE – 2 – 3 – 4’, where there are 4 beats per measure
- ‘ONE – 2 – 3 – ONE – 2 – 3’, where there are 3 beats per measure

Musicians sometimes count like that while playing, to help them keep aware of the beat and to keep track of which beat they have reached in the music. In music, this is called **counting**.

Definition: **counting** is the practice of saying aloud, or thinking silently, the number of each beat in a measure at the time the beat occurs.

An advanced musician does not normally count the beats aloud, and certainly wouldn’t do so in a performance as it would spoil the music for the audience.

*However, for now, as you are learning to keep time, we will count the beats aloud. I’ve observed that **students early in their training tend to play with incorrect timing when they don’t count aloud. They often correct this just by counting aloud.***

By the way ...

Albert Einstein, eminent physicist of the last century, was an amateur violinist. There is a story that he was playing Mozart with a pianist friend, and he lost his place in the music. (That means he was playing the right notes at the wrong time.) His friend turned to him and said, ‘Albert, can’t you count?’

PRACTICAL

BUILD YOUR SKILL

Exercise 1:

Create 4 beats per measure

1. **GRAB** two objects you can safely hit, that make different sounds. For example, you could bang a saucepan with a metal spoon for a strong sound, and tap a table with your hand for a weaker sound.
2. Now **COUNT** ‘1 2 3 4’, and make the strong sound on ‘1’ and the weaker sound on ‘2 3 4’. Like this:

BANG – tap – tap – tap – **BANG** – tap – tap – tap – **BANG** – tap – tap – tap.

Exercise 2:

Create 3 beats per measure

1. Do the same as above, but with 3 beats per measure instead of 4. Like this:

BANG – tap – tap – **BANG** – tap – tap – **BANG** – tap – tap.

Exercise 3:

Hear the repeating pattern in music

Have fun with this.

1 Listen to music

1. **LISTEN** to a piece of recorded music.

2 Listen for beat

1. **LISTEN** for the beat, just like you did in the previous lesson.

3 Join in

1. **JOIN IN** the beat by clapping your hands or tapping your foot.

4 Listen for repeating pattern

1. Now **LISTEN** for the repeating pattern. Can you hear some beats being played or sung more strongly (louder or more emphasised) than other beats? If every 3 beats there is a strong beat (strong-weak-weak-strong-weak-weak), the music probably has 3 beats per measure. If every 4 beats there is a strong beat (strong-weak-weak-weak-strong-weak-weak-weak), the music probably has 4 beats per measure.

5 Join in

1. When you hear the strong beats, **CLAP or TAP** those beats more strongly. You are now joining in the repeating pattern.

6 Different music

1. Pick a different piece of recorded music and do the same, first joining in the beat and then joining in the repeating pattern.

So, was that fun?

In the next lesson, you're going to get back to your keyboard.

What's next?

I mentioned that 500 years ago, musicians started writing music with exact timing. How did they do that? Read on . . .

Go on to your next lesson



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