

In order to begin programming the subconscious mind for effortlessly accurate guitar playing, we first need to understand the difference between natural and unnatural body positions, and how the conscious and subconscious minds interact to allow the body to perform tasks.

Conscious And Subconscious Actions

When performing simple everyday tasks such as using a telephone, the conscious and subconscious minds work together to carry out these operations with the minimum of effort. When dialing a number with which we're very familiar, we don't need to give it too much thought. That is, we don't use our conscious minds as much as we would if the number were unfamiliar. Using our conscious mind, we think of the person and our subconscious associates the fact that we have a phone in our hand and a person in our mind and it tells our muscles to perform the same function it has performed on countless other occasions. If we're dialing an unfamiliar number, we need to use our conscious minds much more. We have to pay close attention to each individual digit. If we make a mistake we have to go back and correct it. We tend to be more careful the next time to avoid wasting time and money connecting with the wrong person. After many repetitions, the number becomes familiar, the subconscious takes over and we can dial rapidly without making any mistakes.

So why does this process work less effectively when we replace the dialing of a phone number with the playing of a musical scale? Why is there so much more stress, fatigue and frustration involved in the learning process? It might simply be that we have abandoned the natural method of learning because we are in too much of a hurry to play in time and up to speed. These timing and tempo issues don't exist for other relatively complicated tasks which we perform effortlessly.

Moreover, tasks such as typing a letter or washing some dishes have a tangible end product. If the letter contains mistakes we immediately go back and correct them. If we break a dish we stop what we are doing and sweep it up. We try to be more careful in future to avoid wasting time, money and effort by making the same mistakes over and over again. This is the natural learning process. If, on the other hand, we play a scale on a guitar, after we're finished it exists only in the memory, so mistakes often go uncorrected. If the notes of the scale were dishes, would we be up to our ankles in broken crockery?

When we are practicing guitar, we need to remember that the subconscious absorbs everything we do whether it's accurate or not. If we play a G major scale seven times, six of which contain mistakes and only one is accurate, we can't expect the subconscious to only store the good information. So next time we place our finger on the 3rd fret of the sixth string and think of a G major scale, our subconscious has seven different experiences from which to choose, and a high percentage of these were flawed. As a result, we repeat a lot of the same mistakes and our progress is slow and tortuous.

If we want our subconscious to make solid decisions rather than rough estimates, we need to give it clear associations on which to draw. Estimations lead to more mistakes and we find ourselves trapped in a vicious circle.

Obviously, we can't remove mistakes from the learning process but we can make sure that the ratio of good information to bad is beneficial and not detrimental to our progress. We do this by not letting mistakes go unaddressed. If we make a mistake midway through a scale, arpeggio, chord progression etc, we don't continue to the end and hope that next time we'll do better. We stop and address it immediately by compensating for the fact that some bad information has been sent to our subconscious. We do this by overwriting it with several careful repetitions of good, accurate information.

For example, if we're six notes into a G major scale and we play an Eb instead of an E, or we don't sound the note clearly, or just play the note with a tone color with which we're unhappy. We stop, relax, reset ourselves a couple of notes before the E and play through the scale, stopping two or three notes after the E. We play this isolated part of the scale several times carefully to overwrite the mistake. After each repetition, stop, relax and reset yourself. Do not play the section as a continuous loop. The first note of the isolated section shouldn't be played immediately after the last because that's not what happens when you play the whole scale. So don't practice it that way. Also, the second or so of rest between each repetition gives the mind a chance to absorb and assess the information, and prevents the subconscious from entering the short term automation mode.

Short And Long Term Automation

If we play a phrase over and over again the movement can become automated as long as we remain in the same position. However, if we change position and then return to the phrase, we can make mistakes again as if we hadn't practiced it at all. This is because the maneuver was only automated temporarily. In order to make this a long-term automation, we need to remove the hand from the position, relax, reset ourselves and replay. Continue in this manner until the phrase can be played cleanly and instantly.

At this stage, tempo and timing aren't as important as careful placement of the fingers. A well programmed subconscious will reward the user with swift effortless movement. This approach applies to all areas of guitar practice, whether it be scale, arpeggio, chord or left and right-hand issues. Always follow a mistake with several slow, careful, accurate repetitions. If a problem persists then an alternative way to approach it is to slow down for the specific section with which you are having trouble. Play the part at a speed with which you're comfortable. As you approach the problem area, slow down and play the troublesome section carefully, giving priority to correct finger placement. After you are past the section then speed up again to complete the part. This approach is much more effective than blundering through the problem area at speed and making lots of mistakes.

As was mentioned earlier, the subconscious mind works by association. It directs movement based on information received through the senses in conjunction with instruction from the conscious mind. This means that the conscious mind has to be free of any non-essential thoughts. All unnecessary mental chatter should be eliminated while practicing guitar. Try to stop your inner voice from commenting on your playing. Thoughts such as, "I played this much better yesterday", or "that bit sounded really great", should be silenced as they have no constructive purpose and simply serve to confuse the subconscious.

We tend to make more mistakes while our minds are wandering. Holding a phone and thinking, "I must get the car washed" isn't an association that your subconscious is familiar with. And so it dials a wrong number.

If, for example, we want to successfully program our subconscious to play bar chords, (or any other chord for that matter), cleanly and crisply, we need to give it a clear signal from the conscious mind and an accurate execution of the desired chord. That is, we need to clearly visualize the chord in our mind's eye while carefully fingering the chord. Don't play the chord until you're certain your fingers are well placed. Then play the chord with a clean chop. This is done by depressing all the fingers simultaneously while making a swift stroke with the right hand. The fingers should all be released at the same time. There's no need to pull the fingers away from the strings. Simply leave the fingers in place and relax the hand, allowing the tension to instantly dissolve. This should cause the chord to end abruptly and cleanly, provided the left hand was playing all six strings. If there were open strings then you will need to use the side of the palm of the right hand [to silence the ringing strings](#). This should be done in sync with the relaxing of the left hand. The product should be a nice crisply chopped chord.

Don't leave the fingers in place and play the chord again as this serves little purpose, other than to exercise the muscles. It's better to let the hand fall loosely by your side for a second, allowing any tension to drain out of the arm, before reshaping the chord anew and performing another brisk chop. Continue in this way until you can make the chord cleanly and instantly. A slightly easier way to approach it, is to switch between two different chords, though this method won't serve you as well when you need to quickly grab chords, e.g., when inserting chords into melodic passages. Make sure that the only thing that enters your mind is a visualization of the chord and the only thing your fingers do is a clean execution of the chord.

Never practice guitar in an absent-minded way with one eye on the TV and your thoughts elsewhere. Absently typing random nonsense on a keyboard while holding a conversation with friends wouldn't improve your typing ability, so don't approach your guitar playing in this haphazard manner. Practice in a calm and quietly focused way to allow your subconscious to make clear associations and to store good quality, uncluttered information.

Never waste time and energy beating yourself up about mistakes or poor performance. Just deal with the elements you wish to improve one at a time in a cool and collected way. If something involves several different disciplines, e.g., alternate picking (check it [here](#)), string skipping and chord arpeggios, and you're struggling to master it, separate the elements and work on them individually. Allow your mind to focus on one thing at a time. People who can juggle while riding a unicycle learned the two things separately before they tried to combine them.

Natural And Unnatural Body Positions

In addition to a clear conscious mind, we also need to play in as relaxed a way as possible. This means avoiding unnatural positions. These are also known as stress positions. These unnatural stress positions quickly lead to physical and mental fatigue. The mind gives high priority to feelings of pain, discomfort and exhaustion, leaving little room for other thoughts. Therefore unnatural positions should be kept to a bare minimum.

Unnatural positions are inherently weak, whereas natural positions are inherently strong.

To avoid inadvertently adopting stress positions we need to learn to recognize them. For a very simple demonstration of the difference between natural and unnatural positions, do the following:

Stand up straight with your legs slightly apart. Let your arms hang loosely by your sides. Keep your back straight and your head centered. Feel how easy it is to maintain this position. You are using lots of muscles to hold this stance but because it's a natural position, you'll have no trouble maintaining it for long periods without fatigue. Notice that your mind isn't being overwhelmed with thoughts of discomfort. You can keep a clear head in this position. You could work on a problem without being constantly interrupted by complaints from your body.

To turn this into an unnatural position, simply bend your knees till you feel a strain on your thighs. Hunch your shoulders up to your ears and clench your fists. You can imagine that it would be much more difficult to maintain this unnatural position for long periods of time. It would be hard to concentrate your mind on a complex problem while holding this stress position.

Before we talk about natural hand positions let's think about how playing guitar may affect the rest of the body. Next time you pick up your guitar and begin to play, devote a portion of your attention to your

body. Try to identify areas of unnecessary tension. Are you slouching over your guitar? It requires more effort to slouch than it does to sit or stand up straight. This extra effort will take its toll and you will tire more quickly. Are you unnecessarily tensing your arms or shoulders? If you're sitting down, are you holding one or both of your legs in a position that requires unnecessary effort? All of these things will make your practice sessions much more taxing. Try to position your body in a way that requires the least effort to maintain. Relax any muscles that aren't directly involved in the holding down of strings or the motion of the right hand.

Naturally Strong Hand Position

If we think of all the ordinary activities we perform daily that involve the use of our hands, we notice a common factor; a straight wrist.

Pick up something with a handle such as your guitar case or amplifier. Explore the difference between holding the object by your side with a straight wrist, and at arm's length with the wrist bent. Not only are your arm muscles having to work much harder to hold the object in this unnatural way but your grip is seriously weakened by the bending of the wrist joint. Now raise your left forearm with the inner wrist facing upwards as if you were about to play the guitar. Tightly clench your fist. Now bend the wrist as far as it can go and feel the tightening of the tendons as they are forced around the corner made by the bent wrist joint. It's this strain on the tendons that causes the weakening of the fingers. Now return the wrist to the straight position and relax the hand, allowing the fist to naturally unclench. Notice that the fingers don't straighten out but remain curled. This natural grip position is the default setting for the hand. It has inherent strength and requires no effort to maintain. Staying in this default position, wiggle the fingers. Notice how easily they move. Now bend the wrist again and notice how the pinching of the tendons restricts the movement of the fingers, causing them to stiffen.

Play Relaxed

If we wish to play guitar then we are going to have to deviate from the natural default position. However, in order to remain as relaxed as possible while we play, we will need to keep the amount of deviation to a minimum.

Set your hand in the default position and place the hand beneath the [neck](#) of your guitar. The first thing you will need to do is swivel the thumb around to the back of the neck. Do this without moving the wrist and fingers. Now bring the fingers up to rest on the 1st string with the first finger positioned above the 5th fret. Now space the other three fingers so that they line up with the 6th, 7th and 8th frets. Try to retain as much of the natural curl as possible. Notice that there is a bend at the tip joint (the one closest to the fingernail). It's important to keep this joint as close to the natural bend as possible to maintain maximum strength with minimum effort.

It shouldn't have required too much effort to place our hand in this 'home' position. So let's see how much more effort is needed to play a note. Raise your second, third and fourth fingers slightly so that only the 1st finger is resting lightly on the 1st string above the 5th fret. Strike the 1st string with a pick or finger to get a muted sound. Let's call this minimum tension. Now, making sure the first finger is the only thing that moves, press the string as hard as you can and hold it. Play the note. Let's call this maximum tension. To switch back to minimum tension again, simply relax the finger and allow the tension to instantly dissolve. Now gently apply pressure with the first finger until you can play the note with the minimum amount of necessary tension. Let's call this the 'on' position. Now let the tension instantly dissolve again, to switch immediately to the minimum tension 'off' position. Using this 'on-off' method, play the notes at the 5th, 6th, 7th and 8th frets with the first, second, third and fourth fingers

respectively. Be sure to switch the previous finger to the off position before switching on the next finger. It's this on-off technique that will allow you to play through a scale in an almost effortless manner as the fingers will be spending a lot of time in the off position.

The importance of the off position shouldn't be underestimated. It is essential for clear definition and relaxed, fluent movement. Switching off and pulling off are very different things. Switching the finger on to play a note requires action. Pulling the finger off or away from the string after the note has been played requires further action. Whereas switching the finger off after the note has been played requires no action. It is merely a cessation of the first action of switching on. Pulling off instead of switching off is the cause of a lot of unwanted string noise as the finger is removed before the string has stopped vibrating. After switching off, the finger remains in place, resting effortlessly on the string as it returns to its normal state. This dampens the vibration immediately.

Stop And Relax

Even while using the on-off method, you will probably still experience a build-up of tension in the hand and arm when practicing. This tension can accumulate very rapidly, and can seriously restrict movement if we don't learn how to relieve it.

As soon as you experience a build-up of tension, which manifests itself in the form of stiffness and dull aches, you should immediately stop what you are doing and let your arm hang loosely by your side until you feel the tension drain away. Try to retain as much of this relaxed feeling as possible when you resume practicing. You should keep doing this until you learn how to relax while playing; even if this means stopping every 30 seconds or so. This is especially important when warming up. Eventually, you will learn to thoroughly relax while playing guitar. This is how professional musicians manage to play for hours without tiring. It's also the reason why they make it look so easy!

Subconsciously Tensing-up

Another type of tension occurs when we subconsciously tense the muscles just before we tackle a tricky section of music, e.g., a large position shift or an arpeggio with which we're particularly uncomfortable. This is the musical equivalent of flinching just before something painful is about to happen. We feel that if we approach these awkward parts in a nonchalant way then we're sure to mess up because we know how difficult they can be and so we subconsciously bunch up our muscles in readiness for the challenge. The irony is that the complete opposite is true; if we remained relaxed for these difficulties, we'd stand a much greater chance of nailing them.

Imagine someone drew two chalk lines five feet apart and asked you to jump over the distance. No problem right? Now imagine this same five-foot gap was between two skyscrapers. Would you approach it in the same way, and which do you think you would most likely mess up?

play it as if it means nothing when it means everything allow yourself to fail

Hit The Nail On The Head; Finding The Point Of Balance

When playing both chords and melodic phrases, it's essential that you plant your fingers squarely and centrally on the string(s).

Take a look at this simple pentatonic E minor scale.

```

E|-----0-3-0-----|
B|-----0-3-----3-0-----|
G|-----0-2-----2-0-----|
D|-----0-2-----2-0-----|
A|---0-2-----2-0---|
E|0-3-----3-0-|

```

After warming up a bit, start by playing the first two notes. Pay close attention to the 3rd finger as it plays the G at the 3rd fret. Is there sufficient bend in the tip joint for the finger to hit the string squarely. Imagine the tip segment of your finger is a hammerhead and the string is the nail. If you strike the nail at an angle it will be pushed to one side. You need to meet the string as squarely as possible to get the best tone and intonation. The next thing to observe is whether or not you're making central, well-balanced contact with the string from the moment you begin to depress it, and not making subtle adjustments after placing the finger. Play the two notes repeatedly. Does your finger hit the string sweetly every time or does it sometimes veer off to one side or the other and make a poor contact causing buzzing or a thinning of the tone quality? If the string were a tightrope would your finger be balanced in the centre as you play or would it fall to one side? Now you know how it feels to play the note cleanly, play through the whole scale observing whether or not your hitting notes square and centered or at an angle and inaccurately. Whenever you encounter a poor contact, stop, relax reset yourself and go over this portion several times carefully. You can take the scale two notes at a time, concentrating on neatness. Then extend it to four notes, and then six and so until the whole scale is neat.

You can try the slowing down for the problem area approach to get rid of any persistent trouble spots. The important thing is never to let the slightest inaccuracy go uncorrected. You can now apply this approach to all scales, arpeggios, chords etc.

Pay particular attention to the tip joint. Do not allow it to collapse (lose its bend). The little finger is especially prone to collapse. Not only do we need a nice bend in order to hit the string squarely but it also has much greater strength, which is most important when holding down chords. You can demonstrate this by holding down a string with your little finger while maintaining a natural bend in the tip joint. Observe the amount of effort required, and the amount of stress placed on the finger and hand by the reactive force. Now, keeping the pressure even, allow the joint to collapse. Notice how much greater is the stress placed on the finger and hand. The reactive force seems to travel much further up the hand and even as far as the forearm.

Chromatic Exercise

Try playing through the following exercise, concentrating on correct, well-balanced finger placement using the on-off technique. An open string has been placed between each note of the chromatic scale. This ensures that you plant each finger independently rather than laying them all down in a rippling legato manner. Good legato is something to which all guitarists should aspire but first, we need to master the on-off independent fingering technique if we're to avoid our phrases sounding too mushy. Remember to avoid pulling off the finger after the fretted notes are played. Switch off before removing the finger to allow the open string to be played. This requires close attention to get right but is a vital skill.

```

E|-----|
B|-----|
G|-----0-1-0-2-0-3-0-4-|

```

D|-----0-1-0-2-0-3-0-4-----|
 A|-----0-1-0-2-0-3-0-4-----|
 E|0-1-0-2-0-3-0-4-----|

E|-----0-1-0-2-0-3-0-4-|
 B|0-1-0-2-0-3-0-4-----|
 G|-----|
 D|-----|
 A|-----|
 E|-----|

Once you have got used to the on-off independent fingering technique you can remove the open string notes from whichever scale you happen to be playing and switch to playing the scale in the normal way using staccato to prevent any mushiness from creeping back in. Eventually, you will need to use a smoother, more musical way of playing scales but only when you're really well balanced and relaxed, and you have fully mastered the on-off technique.

Fingerpicking

The default hand position as described above is also essential when finger picking. It is important to maintain the straight wrist and natural curling of the fingers in order to avoid fatigue, inaccuracy and thinning of the tone when striking the string. As with the left hand, it is vital not to allow the tip joint to collapse. The tip and middle joints must remain in the naturally curled position. The pivot must come from the knuckle joint and not the middle joint. We tend to do this naturally when picking at a sticky label on a CD cover, or when scratching an itch. But for some reason, a lot of us abandon this natural method as soon as we pick up a guitar and pick at a string. Try this out by picking at a label on a bottle of beer or noticing what happens when you scratch at an itch. You should find that the finger(s) form a hook shape with a bend in all three joints. The tip and middle joint remain firmly fixed while the finger pivots at the knuckle joint. Apply this exact technique when finger picking a guitar. If in the past you have had trouble using the elbow as an anchor point while floating the right hand over the strings then you should find the natural position helpful.

Right Hand Tension

Anyone who has tried to play rapidly with a [pick](#) will know that with an increase in speed comes an unhelpful increase in tension in the right forearm. It seems impossible to play at speed while remaining relaxed. Fortunately, it is possible; not only that but it's absolutely essential.

Simply apply the Stop and Relax technique as described above. As soon as the tension begins to build, stop picking, relax your arm, reset yourself and resume. Do this every time the tension starts to mount. This will heighten your awareness of tension from the moment it first begins to happen, and eventually, you'll be able to relax without stopping. Finally, you'll reach a stage where the tension doesn't happen at all as it's completely unnecessary.

Grooves

A great way to make right-hand picking practice more interesting is to create different grooves rather than just sticking to the - ONE two three four ONE two three four etc. I call this the Indian drum beat groove Hi yayaya Hi yayaya. This has a four pulse repetition with a heavy accent on the first beat. Try creating an eight pulse groove by simply moving the second accent back one pulse; ONE two three FOUR one two three four ONE two three FOUR one two three four and so on. Different grooves will make a huge difference to the feel of phrases and will make monotonous picking practice much more enjoyable. Play around with accents and see what you can come up with.

The Difference Between Practice And Performance

If you apply these techniques you might feel that all the stopping and starting is destroying the flow of your playing. At this point, it's important to understand the difference between practice and performance. Practice isn't a performance and performance isn't practice. During a performance, the piece has to be played from start to finish and the imperfections just have to be lived with. In the practice room, however, we don't have to live with imperfections. That's what practice is for!

Hopefully, you haven't lost the will to live while reading this article. I went into far more detail than I originally planned. But programming the subconscious for accuracy is all about meticulous attention to detail. I might also have stated the obvious on occasion but it's impossible to know at what stage of development the reader might be, so I felt it best to cover as much as possible. I hope there is something in here for beginners and intermediates alike. Thanks.

Chris Flatley