

# Study on the importance of left hand playing skills in cello teaching

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**Abstract:** *Cello performance has a very high demand for the flexibility of fingering and the correctness of the position, and determines whether the rhythm and notes in music can be reproduced. For the fingering and handling of the cello, it is mainly accomplished by the left hand. Therefore, the left hand occupies the dominant position in the cello playing process, plays an irreplaceable important role. It is not easy to express the musical thoughts of cello works when playing cello works. It is necessary to use skilled skills and solid basic skills, and to understand the background, history and author of the music one by one, in order to achieve the desired effect.*

**Keywords:** *cello playing; left hand skills teaching training; thumb positions; string kneading*

## 1. Introduction

Over the past 40 years since the implementation of the policy of reform and opening up, the cultural and artistic undertakings have prospered, and the trend of cultural and artistic diversification is obvious, which creates an excellent external environment for the stable development of cello performance art. After 1978, the art of cello performance began to enter a stage of rapid development, during which great changes occurred in both quality and quantity of cello works. Cello performance began to pay attention to the two major factors of reason and emotion, and the grade and connotation of the works were significantly improved, pushing the Chinese cello performance art into a new era of development. For example, The "A Sorrowful Tune" is the most representative well-known work in the development process of Chinese cello performance art. This work contains the fine traditional culture the Chinese nation, which not only has a strong affinity, but also has a very high artistic value. It can be said that cello performance art reached a new height of development after 1978. Compared with the development before the reform and opening up, the cello works after the reform and opening up have very significant innovation. Both the playing techniques and innovative techniques have extremely obvious national characteristics and Chinese characteristics.

Cello is popular among music lovers because of its wide vocal range, beautiful and honest timbre, strong expressiveness, and similar vocal range to human voice. In recent years, on the one hand, the attaches great importance to and promotes art education; On the other hand, due to the excellent performance of outstanding Chinese cellists such as Yo-Yo Ma, Jian Wang and Liwei Qin on the international stage, the popularity, performance and teaching level of cello in China has been improved day by day, which also puts forward higher requirements for the cello education system and teaching level in China. The mastery of left hand skills is of great significance for cello performance and expression. Therefore, based on the study and research of advanced teaching methods at home and abroad, combined with my own teaching experience, the author expounds the relevant factors affecting the left hand playing skills, and then refines the relevant methods for training and improvement. It aims to help players to establish and master the concept of left hand handle position more clearly and conveniently, grasp the intonation stability, clarify the basic methods of kneading strings, improve the musical expression and the performance level<sup>[1]</sup>.

## 2. Skilled skills of the left hand play an important role in emotional expression

For example, "Cello Concerto in B minor, Op. 104, B. 191" in the use of left-handed skills is quite harsh for players, such as double tone, octave continuous double tone, chord, jump bow, overtone, vibrato and so on basically all the left and right hand difficulty skills are reflected in this piece. The movement is written in sonata form, the second movement is in complex trilogy form, and the third movement is in minor sonata form. The three movements are so demanding on the left hand that it is

difficult to complete the 40-minute performance without a strong left hand. And the right hand control is also very strong in the music, the outburst of emotions, the sudden contraction of emotions, the narrative of tenderness and the city is accomplished by the changeable right hand. It is also worth mentioning that the movement of the piece has a very strong jumping character which is not only accomplished by the right hand jumping bow alone, but also the grainy fingers of the left hand, with the right hand jumping bow. From this point of view, the clarity of the fingers of the left hand, the granularity, the powerful chord, the change of the kneading string, the accurate change of the handle and other important factors in the left hand skills of the music, such as intonation, rhythm, speed, emotion, emotion and so on, all play a huge role.

### **3. Common problems in teaching and training of left hand skills in cello playing**

#### ***3.1 Whether the position of the left thumb and hand shape are correct***

First, in the low position, the left thumb should be kept behind the neck of the instrument, forming a circle between the middle and index fingers, with the thumb joint slightly bent outward. The thumb must be kept relaxed, otherwise it will cause the thumb to sag inward, which is not accurate. Even if the thumb is in the neck, it also needs to be adjusted from time to time. It should be adjusted in accordance with the position of the other fingers. Here, it should be noted that the thumb is always on the left side of the middle finger, and the thumb is still bent outward. Second, in the low position, the thumb and the neck of the guitar should be in contact with the left side of the thumb against the fingertip, so that the thumb in the up and down translation will not be subjected to greater resistance<sup>[2]</sup>. However, if the thumb is in positive contact with the neck, it will experience great resistance. Because the muscles of the thumb are relatively thick, this unconsciously increases the resistance of the thumb movement, which also makes it more difficult to switch hands. If the thumb is in contact with the neck, the wrist and the other four fingers will be slightly inclined to the position of the string, which will cause the wrist to sag, which will cause the inaccurate hand shape and poor performance. Finally, in the holding position, the thumb hand should be bent outward with the thumb pressed firmly on the string. This helps to ensure intonation and also improves the fluency of the performance.

#### ***3.2 Finger touch string method is appropriate***

Finger touching the string is mainly formed by lifting the finger root joint activity. Before all notes are played, the finger root joint should be raised as far as possible, so that the finger tip will appear more powerful when it touches the string. During cello playing, you just need to lift the center of the finger, and the center of all the power points is also to lift the root joint of the finger and transfer the power to the string, rather than the force of the fingertip. In this way, the power from the root joint of the finger can make the fingers sound strong, elastic and sensitive when they touch the string. It also makes the movements of each part of the finger easier and more natural. Therefore, when the fingers touch the strings, it is extremely necessary to lift the root joint of the fingers, which is also a perfectly accurate way to touch the strings; Moreover, the root joint lifting of all fingers should be independent, and such independence should be trained professionally, starting at the slowest speed and gradually increasing the speed during training. In the root joint lifting exercise, great attention should be paid to the practice of the little finger (the fourth finger), because the little finger is relatively weak and short compared with other fingers. Therefore, it is very easy to use the fingertips to replace the actions that should be completed by the knuckles<sup>[3]</sup>. If the movements at the root joint of the finger are replaced by the fingertips, the forearm, wrist and fingers will be more rigid, which will seriously hinder the training of the skills of the left hand, resulting in the inability to play a complete piece of music. As long as the little finger is used to play the sound, there will be problems, which makes people feel very sorry. Therefore, in the training process of root joint lifting, attention should be paid to the training of the little finger, and attention should be paid to the excessive movement of the little finger, so as to avoid fatigue problems.

#### ***3.3 Whether the method of left hand exertion is accurate***

In the teaching and training of left hand skills, the method of force is also a problem that needs to be paid great attention to, which plays a decisive role in strengthening the cello playing skills and other aspects. Therefore, in the process of left hand skills training, we must develop good habits. The method of force is difficult to understand for those who have just learned the cello. In teaching and training,

this goal can be achieved through the correct hand shape. Therefore, the left hand is also a very important content, which is not rigid teaching, but pay attention to the mutual auxiliary role of hand and force in teaching. On the basis of ensuring the accuracy of the hand shape, more attention should be paid to the force method of the left hand. In the process of cello playing, the method of exertion of the left hand should be to feel the contact point between the four fingers and the string, keep the hand shape unchanged, hang the fingers above the fingerboard, and use the weight of the arm to better hold down the string. At this time, the thumb on the piano in a very relaxed state. It should be noted that, for convenience, most students exert their left hand like a pincer, with fingers and thumbs in sync. This form looks very convenient, the hand shape is correct, and the finger presses the string more steadily, which seems to meet the requirements of teachers. However, in the long run, after practicing the piano, the thumb will feel very painful at the position of the tiger mouth, resulting in difficult to continue the skill training, and then it is very difficult to adjust. At the beginning of the training of left hand skills, it is necessary to make clear the importance of retaining the finger. The so-called "reserved finger", mainly refers to the left finger in the string if it is not necessary to leave the fingerboard should always maintain the string state. In this way, you can reduce the power consumption of the finger from lifting to retapping. For high-level cello performance, it usually takes half an hour or even longer to play a piece of music, which requires the performer to have enough energy support. Therefore, unnecessary power consumption should be reduced in many details, so as to ensure adequate physical support during cello performance

#### **4. Teaching and training contents of left hand skills in cello performance**

##### ***4.1 Left hand clarity training***

The articulation of the left hand is important, and it is achieved by strong and flexible finger drops and finger raises. We all want to get a clear grain effect when we play fast, and the left hand has to be trained very hard to make the music shine.

##### ***4.1.1 Build good hand shape***

The basic state of the left hand should be circular, according to the natural conditions of each person's hand and the performance of each part, each string, can be placed vertically or forward or backward, here in the way of vertical placement to do. Step 1: The four fingers should be evenly separated, the thumb corresponds to the index finger and middle finger, gently placed on the same string, arm relax, wrist flat, elbow and finger keep straight. The second step: raise four fingers neatly from the heel of the finger, palm and wrist do not intervene, close to the string to maintain the finger distance, fingers neat do not have high or low. Step 3: Four fingers fall on the string at the same time, fingers with equal strength, so repeatedly rise and fall, then use both hands to finger, such as the third, sixth, fourth degree and chord and other different finger combinations, repeatedly rise and fall on each string. The aim is to train holistic sense to maintain stable group finger position (i.e., hand shape).

##### ***4.1.2 Strength and flexibility training***

On the basis of the previous training for individual fingers individual training. Step 1: Place all four fingers side by side, ready to sit above the same string. In the second step, the finger falls vigorously in rhythm, focusing on the heel joints. Each joint of the arm relaxes. When a finger falls, the original finger transfers the force to it, and the first finger remains on the string. The third step is to lift the finger one by one, also with the heel joint vertical lift, do not pluck the string, the movement should be very decisive, sharp. As close to the string as possible, as you lift each finger, transfer the force to the next finger, raising the finger to stay above the string, and repeat this sequence of ups and downs, paying particular attention to the rhythm of the fingers. In this way, the finger movement is in the case of the entire arm loose, under the support of the palm of the strong and flexible.

##### ***4.2 Vibrato and string rubbing training***

Good string pressing and kneading is an indispensable means of musical expression. First of all, the strings of the cello are thicker, so it takes a certain amount of force to make it firm. But a strong string does not kill it, and here it is necessary to distinguish them conceptually. A strong string is elastic and dynamic, and the sound produced by a strong string is alive. If you press too hard and the sound is flat and dry, note that the first point is firm. The finger rests on the string. The elbow and the fingertips are one, and the source of power flows from the back up to the fingers. The second thing is uniformity. The

speed is controllable, which is relatively important, and it's a yardstick to check whether the kneading string is correct or not. Counting training is currently the most recommended training method, that is, really do know: with two fingers on the fourth position of the D string on A long note A knead every two stops, a bow stops twice, and then continue to rise, four, five, and then eight. You can knead the strings in countless numbers. Where the number is not uniform to stop to practice it, the key is that each finger knead string in the same direction. The kneading string should be directed towards the head of the instrument. Training method: Press the four fingers on the strings and knead them up and down at the same time. When kneading, the fingers lift and fall one by one. The fingers on the strings always keep the direction of kneading, so that the kneading action will not be interrupted when changing the hands and fingers. There is also a problem, that is, the high pitch area: that is, kneading strings on high and thick strings often has no effect. This is how to transfer the force to the fingertips. The following methods can be used: a. After the finger pressed the string, press up and down in situ, feel the force concentrated in kneading the string. b. With the falling finger movement, the force is transferred up along the trend. c. With the changing handle movement, when the finger slides to another sound, stand still and knead. This regular scientific practice of kneading strings will allow the music to express notes of different strength and emotion as your emotional strength changes. Beautiful music does not appear in a single position, no matter how well the chords are in place can replace another important factor - changing.

### ***4.3 Establishment of position system and corresponding basic skills training***

The left hand technique and playing technique of the cello have become more perfect, and a large number of excellent works showing the superb playing skills of the cello have emerged, further promoting the development of the cello playing art. Establishing a clear concept of holding position is the key link for players to grasp intonation conveniently and stably in the process of cello learning.

The player should fully understand and master the relationship between the above basic positions and the corresponding fingers as soon as possible, and pay special attention to keep the thumb relaxed at the back of the neck and follow up during the learning process, especially when switching between the size and size of the low positions. The author suggests that players can use the two fingering systems alternately in the practice process to enhance the control of fingers. In order to strengthen the concept of the whole handle position, it is especially advocated to practice up and down repeatedly on the basis of keeping the finger position in the same handle position. After establishing the feeling of the whole handle position, it is necessary to change the handle to the next position for practice. At the same time, this kind of method can also be applied to arpeggio practice, so as to strengthen the overall sense of the horizontal multi-string of the same position, and can be used in two-tone practice.

In the process of various holding exercises, players should pay attention to the following three aspects: First, in the training process of all sizes of holding positions, all finger joints should be kept in a supportive state, especially the root joint (the third finger joint from the fingertip); The tiger part of the left hand is opened in the shape of a C word. The thumb, according to the natural conditions of the player's hand, corresponds to two fingers or falls on the back of the neck between one and two fingers. The left hand is always relaxed to avoid tension and stiffness caused by "pinching" and "squeezing". Second, the player's left arm height should be moderate. In the process of practice, players should reduce unnecessary arm height changes in a relaxed state, and determine the basic height of the left arm on the premise of freely changing between the low and high handlebars, so as to avoid the excessive height changes of the left arm that lead to uneven handlebar changing and unstable intonation. Third, try to maintain the stability of each hand. Because the thumb of the high position is lifted above the fingerboard, it is easy to cause a lot of players from the low position to the high position conversion due to the change of the hand shape caused by the deformation of technical movements, and then produce intonation problems. As a result, the cellist Stark suggests that players begin their practice with their thumbs on the back of the fretboard to ensure that the hand and string changes are minimized as they move from low to high. When the hand shape is basically fixed, place the thumb on the fingerboard and fine-tune the hand shape to enhance the unity and stability of the hand shape.

## **5. Conclusion**

In this paper, the author summarizes the common problems and solutions of the training of the sense of position of the left hand and the techniques of kneading strings in the process of cello playing and teaching, and discusses related problems with all colleagues. During the writing of this article, it

coincided with the final of the Elisabeth International Cello Competition in Belgium. In the process of observation and research, the author found that the finalists not only showed strong musical expression and unique musical interpretation, but also demonstrated solid training in basic skills such as the sense of holding position, fingering structure and string continuity, and the control of speed and amplitude. This also confirms that all countries and schools attach great importance to the systematic training of left hand skills. Chinese player Chen Yibai won the second prize in this competition, which also shows the rapid development of cello teaching in China in recent years. In this paper, the author hopes to introduce jade through the relevant research on the technical problems of the cello left hand, thus causing more discussion on cello teaching problems, and jointly inject multiple wisdom into the development of the cello cause in China.

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