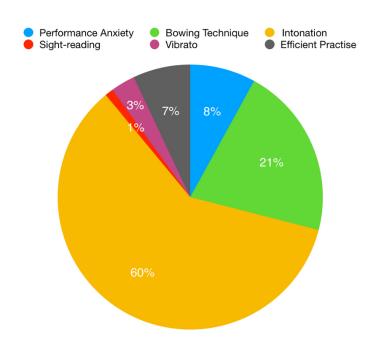
I have distributed a questionnaire asking violin students at the Royal College of Music what aspect of violin playing they find the most challenging.



From the results we can see that the majority of students (60%) identified intonation as the most difficult aspect of violin technique. Therefore I have decided to base this mini-treatise primarily on intonation.

In this treatise I will outline some of the psychophysical aspects of intonation and explain how the Alexander Technique approach can help violinists refine their ability to play in tune. This short treatise is aimed at advance violin players that are new to Alexander Technique and can be used as a complimentary guide to their routine intonation exercises.

The are numerous theories on such controversial subject of intonation. Some schools of violin technique believe that to play in tune the player must develop their hand shape by spending hours practising scales, while others believe that 'the art of playing in tune is adjusting notes that are fractionally out of tune so quickly that nobody else notices'. Interestingly, the psychophysical aspect of violin playing with regards to intonation is barely mentioned in the literature.

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<sup>&</sup>lt;sup>1</sup> S.Fischer, 8 Views on Intonation, The Strad, July 2008

As violinists we take great care to tune our instrument before playing, to warm it up in cold weather, to attend to any mechanical faults it may have. We would find it extremely difficult to practise or play well on an out of tune or badly maintained instrument, but too often we may be unaware that the primary instrument, myself, may well be 'out of tune'. We imagine that when we practise we are learning to play our instruments; but a moment's reflection will show us that we are learning to play ourselves.

One of Alexander's main discoveries was identifying that the most effective way of working is when we consider our Whole Self. Therefore, I felt it would be counterproductive to discuss intonation before covering some of the fundamentals, as they will have a direct impact on intonation.

## Supporting the instrument

The way the violin is supported and held has to be one of the most important aspects of violin playing; yet the idea that the instrument is held in a fixed position, and the notion of a 'correct posture' is perhaps the most common misconception amongst violin players.

Alexander's discoveries led him to believe that the way we use our body affects how it functions, therefore to achieve great coordination and freedom of movement, we must hold the instrument in such a way that will not interfere with the freedom of the primary control. The term primary control is one of the key Alexander Technique principles and it refers to the relationship between the head and the rest of the body. Primary control works well when the head is allowed to continuously rebalance on top of the spine. It is a psychophysical process which can be controlled by a thought process of a wish or intention. In Alexander Technique terms - direction. We can direct our heads forward and up in relation to the spine to avoid interference with the primary control.

The importance of effective primary control cannot be underestimated as the number of nerve receptors in the neck is much higher than in any other muscles. It is also 'the region where the major cranial and spinal nerves connect the nervous system to its organs, skin, and muscles of the head and neck. These structures all work together to control every part of the body and receive sensory messages from the environment and the body's internal structures'.<sup>2</sup>

If the weight of the head which is 5 kilograms is not allowed to balance freely on top of the spine, it has to be supported by the muscles of the neck. This causes shortening of the neck and back muscles which compromises the whole structure and leads to poor coordination.

<sup>&</sup>lt;sup>2</sup> T. Barclay, Nerves of the Head and Heck, Innerbody, 2020

<sup>&</sup>lt; https://www.innerbody.com/image/nerv01.html> (accessed 31/03/2020)

Understanding the importance of the head-neck-back relationship paints a better picture of why a simple act of putting the violin up can cause much distress to the player.

When putting the violin up, it is important to bring the instrument to the head, and avoiding the tendency to bring the head to the instrument. The latter is the cause of many problems and a prime culprit in dis-coordinating the whole system. Many violinist may feel that if they do not bring the head forward to meet the instrument, they do not get enough contact with the chinrest. Challenging this feeling, which is mostly illusory, requires a little patience, but is definitely worthwhile.

Once the violin is up, ideally there will be some contact of the violin with collarbone as a primary shelf, with additional contact with the shoulder rest/pad as required. The ideal state to be in is to not focus on the task but maintain awareness of the environment and see if there can be as little reaction as possible in you as a whole. Following that the player should turn the head slightly to the left, as much as required and in a free and smooth movement. Then release some of the weight of the head forward from the nodding joint onto the chinrest.

The player must also be mindful of not pulling the head back and down in relation to the spine when bringing the instrument close to the face, as that will develop a 'Startle Pattern' which is a natural reflex that we go into if we get a shock. Such head displacement will have an adverse effect on our breathing, coordination and even emotional state.

Another controversial question that must be considered by advanced students is what role the left hand plays in the support of the instrument. There are many different schools of thought about this complex question; some believe that the left hand can only be free if it takes no weight, and some rely almost entirely on the left hand support. In my opinion it should be a combination of both depending on the specific technical demands such the playing position, shifting up or down, playing single or double stops. The key is to make the left hand, head and shoulder available and adaptable to the changing needs of the moment.

## Importance of Balance

When we talk about support of the instrument, we need to get away from the mindset that supporting the instrument is a localised 'head-shoulder-left hand' action. We rest the violin on the collarbone, but the upward support is provided by the entire body of the player.<sup>3</sup> Our pelvis and the head are not only connected by the spine, but also by the muscles that stretch across the torso. Thus, supporting the instrument becomes the job of the entire body. That is why the balance of the whole body plays an integral part in that process.

<sup>&</sup>lt;sup>3</sup> C. Porter McCullough, *The Alexander Technique and the String Pedagogy of Paul Rolland,* Arizona State University, 1996, p.8

Balance relates to the way we organise ourselves in response to the force of gravity. To achieve high level of freedom, it is important to understand that any action on the violin is the work of the mind and the whole body working as a unity; and as a result it is impossible to allow freedom in the upper half of the body without staying in balance. When thinking about balance, we must take our instruments into consideration. It is crucial to allow our system to continuously rebalance throughout the body, as any fixed position will require unnecessary tension to keep the body from falling over. A common fault for violin players is to lock the legs, leaving the upper part of the body with no other choice but to compensate by distorting it.

Staying in balance does not mean 'relaxation' as that would make us feel heavy and less movable. We evolved to stay upright and in balance through using the extensor muscles. It requires the necessary tension and if the system is working efficiently, the task of staying in balance and supporting the instrument will feel effortless.

To feel that lightness and ease while playing we must practise balancing with the violin as part of our instrumental technique. First things to consider are the primary control and our awareness of the contact with the ground through the feet.

There are three main weight bearing areas in the foot: the heel bone, the area under the base of the toe and the area under the base of the little toe. In a neutral standing position the weight should be spread between these points. The flexibility of the ankle should give us great freedom in adjusting this balance.

It will be highly beneficial to experiment with your balance while practicing. For instance move your weight gently back and forward, or stand on your toes, or on one leg the the other while warming up. The feeling of a living, flexible contact with the support of the ground through your feet can help to free the whole structure.

#### Intonation

## Importance of sensory awareness

To play in tune it is paramount to rely primarily on the sensation we receive from our connection to the instrument. If our fingertips are 'open' to receive as much sensation as possible, it will help us to stay more connected with our bodies which tends to be more reliable in a performance situation.

Any unnecessary tension will reduce that sensation, as we will not be able to feel as many vibrations from our instrument. The muscles that are not functioning at their optimum length will also make our playing less accurate and will fatigue sooner. It is therefore absolutely vital to minimise the tension.

Firstly, we need to become aware of our balance. As mentioned previously, if our body is not allowed to continuously rebalance, the only other way it can hold itself up is by tensing the muscles; and it is impossible to free the upper half of the body if the bottom half is locked.

It is also necessary to maintain environmental awareness. Any narrowing of the attention, which we might feel obliged to do when we focus on a specific task, will tend to interfere with our openness, freedom of movement, and quite possibly, even the ability to listen in an objective way.

#### **Practising intonation**

When practising intonation it is essential to explore and go beyond the simplistic concept of a 'perfect' hand shape. We must memorise the feeling of playing in tune by becoming consciously familiar with the sense of movement and relative position of our hands and body. Intonation will be secure and reliable if we internalise the feeling of the vibrations that are being transferred from the instrument to our wrists, arms, shoulders and back when the note is perfectly in tune.

We must also aim to not narrow our attention and focus on the task, but instead try to find a balance between internal and external awareness. Internal awareness includes the feedback from our instrument, our balance, our thoughts; external awareness is the space around us, our colleagues. Thus, when we come to performance it will be easier to stay present in the room and communicate with the audience.

While practising, it is important to enjoy the process and the quality of movements, and avoid the desire to 'get it right'. Simply noticing if the note is too sharp or too flat without judgement will help us to get away from trying too hard and 'end-gaining' in practise, which in turn will inevitably reduce unnecessary tension.

#### Conscious brain vs subconscious brain

Our conscious mind continuously analyses and rationalities what we do and how we do it. To be able to play in tune we need to use the guidance of our conscious brain to rationalise and apply our theoretical knowledge to decide where to 'place' the note.

Intonation is context sensible and the placings of notes are determined by multiple factors such as their role in the harmonic progression; whether we are playing a solo violin piece, with a piano, ensemble or in an orchestral setting; what acoustic we are playing in; the blend of sound, vibrato and many others.

When playing with instruments that are tuned in equal temperament such as piano, the player must adapt their intonation. Likewise when playing in an ensemble, things like balance, attack and vibrato can contribute to bad intonation. This highlights the necessity of extreme sensitivity both in the sense of touch and the ears which together respond to the player's execution, conscious or unconscious.

All the knowledge should be applied in practise but over-analysis is not useful for performance. We can improve our intonation by developing our kinaesthetic awareness through the sense of touch and vibrations from our instrument, but our

subconscious brain works much faster and more accurately. It also has a massive pool of knowledge from everything we ever learned from our teachers, colleagues and experiences, consciously or unconsciously.

It is easier to go into the desired 'facilitated subconscious' state while playing if we direct our attention to what is going on around us.<sup>4</sup> That way we will come into balance and find freedom in mind and body.

## **Trusting ourselves**

To achieve high level of playing, it is important to have trust in your abilities. When we really learned something it becomes almost an automatic habit and is available for us to draw from without any effort, similarly to walking or breathing.<sup>5</sup>

We should learn to trust our intuition as there could be many things out of control in the performance, such as strings going out of tune, an out of tune piano, unfamiliar acoustics, nerves. If we allow ourselves to stand back and let our facilitated subconscious do it's job, we will give ourselves the best possible chance to play in tune.

## **Bowing and intonation**

Many people don't make a connection between the bowing and intonation. However, the resonance of the instrument and intonation are closely allied. The quality of intonation will therefore also depend on the player's ability to produce resonant sound.

On a purely scientific level, putting too much downward pressure from the bow onto the string will make the pitch rise, making the note out of tune regardless of the left hand position. From Alexander Technique point of view, we cannot possibly maintain a fluid relationship in our left hand if there are any blockages in the right arm of our system.

#### Conclusion

The quality of movement we make is largely dependent on the poise, freedom and balance of our Whole Self. If we are not in balance, well related to the support of the ground and with open structure we are truly 'out of tune', and as such much less capable, if not incapable, of producing the sort of quality of movement we need and wish for. Taking time before and during practise to pay attention to these basic qualities is essential if we wish to get the best from ourselves and our time. We should never practise with an 'out of tune' self. The quality of our playing is absolutely dependent on the quality of our movement, which in turn is absolutely dependent on balance, freedom and poise of the whole.

<sup>&</sup>lt;sup>4</sup> J.Kleinman and P.Buckoke, *The Alexander Technique for Musicians*, Bloomsbury 2013, p.201

<sup>&</sup>lt;sup>5</sup> J.Kleinman and P.Buckoke, *The Alexander Technique for Musicians*, Bloomsbury 2013, p.200

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