

Intonation Criteria in Violin Performance

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Aims and Objectives

This paper presents a discussion of the different methods of intonation in a non fixed-intonation string instrument: the violin. Intonation is an important skill that must be developed by all musicians. Without an internal pitch reference or kinaesthetic spacing control, it may be difficult to perform with accurate intonation. But the string teacher does not consider instruction in this to be important.

It is necessary to consider what is accurate or pure intonation. We attempt to identify patterns when violinists pay attention to their tuning and focus on intonation. The purpose of this study is to discover if middle-level violin students recognise the way they tune and are aware of how they control their tone production and pitch discrimination, and to ascertain their awareness of the process of performing music, from the artist's mind to the violin.

Context

The tuning systems try to establish a way to preserve consonance intervals. The studies of Rakowski and Fyk attempt to link the psychoacoustic method of research with the musical performance. For Morrison and Fyk, intonation refers to the manipulation of pitches and intervals within a real musical context. It appears to be more negotiation than conformity.

The human being represents the world through perception. Everyone has their own way of perceiving what surrounds us, because we are conditioned by factors like attention, previous experience, musical instruction, cultural origin and so forth. In string playing, education is very important to the way students approach to tune the strings with fifths that contain no beats, to place the fingers and, in addition, to conform a musical performance. The musician decides the way of perceiving the music and the way that it is going to be communicated and heard. The artist's mind projects the sound before the body makes the movements necessary to produce the music.

Bergonzi suggests that the intonation process of string players is:

- audiation (before musical sound is made)
- kinaesthetic movement to produce the note
- discrimination between the mental pitch and the emitted pitch
- little adjustments of the violinist's finger

Rakowski postulates that melodic intonation involves acoustic factors (strings consonance, beats), psychological factors (tendency to enlarge or reduce intervals) and expressive factors (to give more tension inside an interval context). Like the purpose of the present study, Fyk remarks on the difference between the intonation perspectives, a traditional way of a static intonation and a dynamic-interaction intonation model.

The musician should also be aware of the existence of different historic intonation systems. All of them have their own tuning problems, and the choice of which to use depends on the culture, geographical area and aesthetics. Barbieri postulates that we have very little information about the history of tuning systems, because the sources are unpublished or are of only practical or experimental origin. The sources do show that violinists of all schools, at least until the middle of the eighteenth century, played in just or mean-tone intonation; moreover, the Italians, especially during Corelli's time, enjoyed playing in quarter-tones.

Doing a tuning-historical survey, since ancient Greece, when the Pythagorean tuning appeared, in the Middle Ages this tuning system was perfectly adequate to the monodian Gregorian chant. In the sixteenth century, the polyphonic system contributed to the development of the Just (syntonic) intonation, the Mean-tone (mesotonic), and the Tempered systems. Nowadays, the Equal Tempered system is established, and despite being the most "unnatural" tuning system in terms of the harmonics or overtones of a sound it is considered by many to be the "true" tuning. But Laucirica postulates that our culture origin induces us not to recognise the "natural" tuning system, which is based in the harmonics, as the most desirable way of intonation.

Music teaching has to take account of the little variations in music intonation and to give students information in order to be able to choose a dynamic and expressive intonation.

Methodology

In the empirical studies, five violin students were recorded and interviewed. They played an eight-bar fragment of Corelli three times, and were asked about their knowledge of tuning and intonation and the way they think about these things.

Results

The interviews showed that those nearly high-grade violinists had little knowledge of the existence of differing types of music intonation, and lacked the ability to identify an accurate intonation and try to improve or develop in their instrument. They considered intonation as something inside of themselves which they are able to communicate using their violin. The quantitative data were analysed in order to show the deviations (up to +49 cents from Equal Temperament) and showed, not clearly, combinations of tuning systems, which induces to a dynamic and expressive intonation.

Key contribution

The conscious intonation and the references and criteria of violinists belong to a large research field. It is necessary for a deep knowledge of the mental processing and abilities that influence the perception and production of intonation. Violin instruction needs a personal, open-

mind ed and flexible education that gives scholars mental control of physical movements and a conscious, dynamic and expressive intonation, so that they can form their own musical criterion about the intonation of violin performance.

Key words

Violin intonation; tuning systems; Pythagorean intonation; expressive intonation; string instruments

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