

Vincenzo Galilei's Criticism against Zarlino: The Transfiguration of Pythagoreanism

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In the 16th century Italy, many discussions about intonations came about because of the diversity of intervals used in polyphony and the development of instrumental music. Gioseffo Zarlino, one of the most leading theorists of the late Renaissance, advocates the syntonic diatonic of Ptolemy, which is the just intonation based on the ratios by senario (integers 1-6). For him senario has metaphysical connotations supported by "Nature", that is, God. This way of thinking reflects the Pythagorean tradition of quadrivium. But he recognizes that the just intonation is applicable only to vocal music, but not to instruments with fixed pitches like keyboards.

Vincenzo Galilei, Zarlino's pupil at one time, in his Dialogo della musica antica et della moderna (1581) and later Discorso intorno all'opere di messer Gioseffo Zarlino (1589), points out the mathematical flaws of Zarlino's just intonation and attacks his speculative idea of transcendental senario. His attitude is fundamentally empirical and pragmatic in this point.

Instead of the syntonic diatonic of Ptolemy, Galilei champions the intonation system of Aristoxenus, which is identical with the equal temperament. According to him, it is this intonation that is used in reality. In this system, the subject (subbietto) of music is not the discrete quantity, that is the integer, but the continuous quantity which can be divided infinitely. Therefore musical intervals cannot be determined by simple ratios, as the traditional Pythagorean musical theory has done, but they are variable and regarded as the objects

exclusively of the sense.

However, it is because of its simplicity that Galilei champions the Aristoxenus' system. Like Zarlino, his taste is also oriented to the just intonation, but he recognizes that it is difficult to realize it. For him, music is artificial, not concerned with the transcendental "Nature", which Zarlino's theory depends on.