

ORDER/DISORDER AS A DETERMINANT OF MUSICAL STYLE

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The concept of order in music is related to the system of expectations and their realizations (including deviations from expectations) or to the predictability, with varying degrees of certainty, as to the continuation of the musical progression on each level. These factors, we believe, reflect the aesthetic ideal that guides the shaping of the style.

Different styles are characterized by different schemata that are marked by various types of order in accordance with the degree of clarity of organization and the degree of complexity on the various levels of musical organization.

Despite its importance, the concept of order (which encompasses symmetry phenomena) in music has not been explored systematically. In the present paper we examine different kinds of order and hierarchy that govern raw materials, compositional rules, and specific pieces. We use analytical tools taken from information theory, but also consider the essence of the parameters, the degree of clear categorization in their appearances (distinguishability between what is different and what is similar), and the listener's expectations.

We examine order in musical works by means of a method based on mathematical formulation of "universal classification of series" (Ziv and Merhav 1992), which has proven itself for language (Tishby et al. 1997). The problem here is to find the "correct" coding of musical structures that take into account the large number of parameters and levels in musical organization. By marking recurrent series, we will create a dictionary of "motives," harmonic progressions, etc. The degree of disorder will then be determined in accordance with the size of the dictionary and the degree of equality of the scatter among the various states. Preliminary efforts have shown that we can thereby obtain at least a partial estimate of the entropy in a given piece and compare pieces from different styles.