
This paper provides a linguistic approach to study classical music, attempting to interpret Bach fugue from the listeners’ cognition viewpoint. This paper proposes certain general rules of metric and harmonic signatures by modifying the first common rule to cover other particular cases. The paper is well constructed and it articulates the analysis process clearly. First of all, it introduces the essential terminologies for music grammar, the time and key signatures, and it focuses on one music style instead of involving too many uncontrollable subjective factors. For structural analysis, the authors introduce the congruent/non-congruent concept to explain accidental notes and syncopated notes. The paper then gives many examples of the rule-generation process for metric and harmonic algorithms to clarify the reasoning of music and rules.

This paper is truly impressive due to its persuasive analysis, enlightening ideas and interesting thoughts. For example, the idea of different “duties” of music cognition, including the music expression of performers the listener’s interpretations. This paper also indicates the ways to construct general music rules while avoiding superficiality, based on the rule of congruence from the progressive nature of listener’s comprehension. The most interesting idea is that “No musical theorist has hitherto formulated the rules which generate the correct score of a simple melody, as opposed to any of the numerous incorrect scores which provide the same explicit information,” which describes the mystery of human’s perception and cognition about music. Furthermore, the authors provide various examples to illuminate the conceptual inference and thus enhance the persuasiveness of their argument (although I am not familiar with all the examples given or with Bach’s music).

It’s a pity that I cannot understand or imagine all the examples in this paper, especially many of them are only referenced. I do hope there is a chance to “listen to” these examples in class.

This paper can be a critical starting point for music metric and harmonic analysis for future research. For example, it can be a comparison model in European classical music style. Currently, many researchers are striving to construct these rules using machine learning technique.

P.S. I came across a reference of Margaret Johnson’s Ph.D. dissertation on the Internet, in which she uses an Expert System to interpret Bach Fugues. It shall shed interesting insights if we can compare the two projects, although I am still trying to get a copy of this dissertation.