

The Ideational Flow: Evaluating a New Method for Jazz Improvisation Analysis

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ABSTRACT

Background

Jazz improvisation has mostly been analysed on a micro level identifying tonal formulas either manually with classical methods, statistically on a single-note level (see Pfeleiderer & Frieler, 2010 for an overview) or by means of qualitative case studies highlighting creative processes (Sawyer, 1992; Seddon, 2005; Noorgard, 2008). Experimental approaches shed light on the influence of musical parameters (Hargreaves, Cork & Setton, 1991), but they are lacking ecological validity in providing just simple chord changes instead of truly musical forms as well as accompaniment by backing groups. Moreover, the scope is narrowed due to the applied conventional methods of musical analysis, hence the perspective on creative processes appears shortened. Though detailed models of cognitive processes in musical improvisation are at hand (Pressing, 1988) empirical evidence is rare, and unlike in musical composition (e.g. Collins, 2005) little is known about basic ideational pathways taken in improvisational processes.

Two pilot studies conducted by the authors used an experimental design focussing on the influence of tempo, tonality and expertise on musical structures (Lothwesen & Frieler, 2011; Schütz, 2011). Pianists of different skill levels (study 1, n=3; study 2, n=5) were given standard jazz pieces varying in tempo and tonality as stimuli to improvise (e.g. “Autumn Leaves”, “Impressions”); experiences from the recording situation were captured in focus interviews. During analysis of the recorded piano solos we aimed at a holistic perspective on the improvised musical structures. Therefore a new qualitative approach was devised based on the concept of “ideational flow”. Our approach is inspired by Grounded Theory (Glaser & Strauss, 1967) and by methods of qualitative content-analysis (Mayring, 2000). It supposes a seamless chain of underlying musical ideas which are shaped into a musical surface during improvisation. Indeed, several musical ideas could be identified, which turned out to be quite diverse categories, ranging from thematic/motivic variations and various kinds of melodic runs to purely rhythmical parts and even “emptiness”.

Moreover, this qualitatively coded stream of ideas enables quantitative measurements as well. Distribution, length (in bars) and duration (in seconds) of ideas can serve for various statistical analysis. In the study of Lothwesen & Frieler (2011) it was found, that while tempo plays a strong role, tonality did not show any influence on the improvised musical structures; the pianists’ expertise resulted in a greater variability of forming schemes and planning horizon. In the second study (Schütz, 2011), it could be demonstrated, that jazz piano improvisers exhibit distinct personal styles, since the overall distribution of ideas were consistently more similar to another

recordings of the same player than to improvisations of other pianists.

Aims

In this study, we aim at further validation of the method by cross-evaluating a set of selected analyses of jazz piano improvisations drawn from the previous studies, thereby objectifying this method with the overall goal of standardisation.

Method

The aforementioned studies used different samples of jazz piano improvisations and different, though related categorical systems of musical ideas. In a first part, each of the authors re-examines improvisations from the other study employing their own category systems. The resulting sequences from different analytical processes are compared for corresponding improvisations which allows estimation and optimization of inter-coder reliability. In a second part, subjects from one of the studies (Schütz, 2011) are confronted with analyses of their improvisations giving insights into the external validity of the method and strategies for enhancement. Eventually, both approaches will lead into a unified category system with clear-cut assignment rules.

Results

The analysis is currently underway. Results will be ready at time of the conference.

Conclusions

The ideational flow analysis is a powerful tool for improvisation research giving new insights in the creative processes involved. By validating and standardizing our method, we will be able to achieve in the future results that are readily comparable across studies and researchers.

Keywords

improvisation, musical analysis, cognitive processes

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