# Primary and secondary aspects of musical gestures in live coding performance

Georgios Diapoulis

Chalmers University of technology, Gothenburg, Sweden

## Background

Musical gestures employ a variety of functional aspects during music performance. Primary gestures, namely sound-producing and ancillary gestures, are responsible for direct effects of the sound generation using typical musical instruments. Communicative and sound-accompanying gestures, also known as secondary gestures, are typically present in dance performance. In addition, these secondary aspects of gestures may trace musical sound but also may be used as a vehicle of corporeal understanding. Live coding performance seems to be disconnected from the primary aspects of gestures, whereas the secondary aspects may be present during specific performance types, like dance performance.

## Aims

The theoretical background of musical gestures seems to be disconnected from the live coding community, which may be due to different expertise. The aim of the study is to identify the current status of musical gestures in live coding performance and communicate knowledge between disciplines. Also, questions are raised on whether or not it is possible to experience primary aspects of musical gestures in live coding.

## Method

The present study is a literature study based on the conceptual framework of gestural space as has been presented by Jensenius, Wanderley, Godoy & Leman (2010). We also discuss few case studies on musical live coding performance systems and we examine how gestural unfoldings may be driven by musical imagery during performance.

## Results

Primary aspects of musical gestures are not clearly expressed in live coding performance. While this may act as an inhibitor to a holistic musical experience, it is not a barrier to experience glimpses of embodied interactions, as these have been demonstrated in dance, solo and ensemble performances. We are theorizing how auditory percepts may be linked to musical imagery which in turn can trigger mental models of gestural interactions. The live coder is capable to incorporate progressive levels of abstract actions needed to realize novel code evaluations during performance practices. This raises questions how these mental models may drive gestural unfoldings during performance practices.

## Conclusions

A disciplinary gap between music psychology and live coding community is identified and discussed. Since live coding is directly related to the psychology of programming there is an inherent need to be linked to its humanistic roots and transfer knowledge between domains. The tackling problem on how to generate sound-producing gestures in live coding remains an open question.


## Keywords

Musical gestures, live coding


## References


Jensenius, A. R., & Wanderley, M. M. (2010). Musical gestures: Concepts and methods in research. In *Musical Gestures*(pp. 24-47). Routledge.