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Expression in process music: possibility or paradox?

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If you were composing a piece of music from scratch, how would you decide what to do? Once the context, such as the location of, and the reason for, the performance has been clarified, there are many more decisions waiting to be made. What about the first note: its pitch? its duration? its amplitude? What about the next note: its pitch? its duration? its amplitude? What about every other note that falls between this and the final one? How would you decide what to do?

To reduce the number of micro-level decisions I need to make every time I work, I would like to construct an algorithmic compositional system which can produce expressive music if so desired.

Throughout Western music, rules have been applied more or less strictly to composition. For example, the well known song, Three Blind Mice, requires that the initial tune is composed according to the rules of tonal harmony, then the next set of rules defines where each new singer begins, and then how the music is to end.

What differs from composer to composer, and style to style, is the number of, and which specific, details they concern themselves with, the remainder being left to compositional algorithms.
Algorithmic composition progressed throughout the 20th century, as modernism became the dominant aesthetic, until finally ‘process music’ arrived, where the single remaining compositional decision related to what sonic resources to use.

Composition pedagogy in the late 20th century did not explicitly include ‘expression’. This raises a second question, as repeatedly, musical discourse refers to ‘expression’, which seems to be something that audiences desire and to which they respond.

Addressing these questions has lead me to reconsider the way music itself, and compositional processes, are characterised in music analysis. The outcome of my research is a new theory of music, using Fuzzy Logic principles. I am using this theory to build an algorithmic compositional decision-making system which can create specific aesthetic experiences.

Fuzzy Logic is already applied in physical and IT engineering to automate complex tasks, for example washing machines, which seem to intuitively ‘know’ what kind of washing cycle to use for particular clothes.

While there remains considerable work in ultimately building the Fuzzy Logic system itself, the next time you are listening to music you might like to think about not only the context in which the music was written, but also the many decisions the composer has made in the process of creating the music, and how these decisions have contributed to the aesthetic outcome.