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The Music of ‘Flow’

By *RICHARD CARRICK*

As a composer who studied music and mathematics, I have always found numbers, structure, and science accessible touch-points. But something more interesting evolved over the past several years as I returned to the Hungarian psychologist Mihaly Csikszentmihalyi’s work on “flow.” Coined in 1969, he defined flow as “the state in which people are so involved in an activity that nothing else seems to matter.” No surprise then that some of his first participants were composers: this is a constant aspiration. Composers have a reputation for working methods that include long sessions alone in their workplace with intense focus on their work, occasionally — indeed, arguably ideally — eventually losing a sense of time. I was attracted to this idea and felt a kinship, less to my working method but more in the way I thought and organized my music. But how was I to use “flow” in any musically meaningful way?

Many composers in the 20th and 21st centuries transformed ideas from science, mathematics and other fields into compositional techniques and sources of inspiration in their works. They varied broadly from literal application to inspirational reference, and composers varied in their apparent comfort in discussing these influences.

Claude Debussy, master of the spontaneous, “break all the rules” approach, secretly used the Golden Ratio to structure precisely many of his middle period works. Edgard Varese, brashly rejecting equal temperament and classical influences, developed a new modernist paradigm with his metaphorical inspirations from science, epitomized in the seminal concert work without classical instruments: “Ionisation,” written for 13 percussionists. The Greek composer Iannis Xenakis, who was also an accomplished engineer and architect, used higher-level mathematics (most notably the complex stochastic process) to generate his music in equally fantastical ways, pushing the limits of players and their instruments. The spectral composers Gerard Grisey and Tristan Murail used computers to analyze sounds and recordings as complex harmonic overtones, where melody, harmony, and form are subservient to timbre. This is but a minute sampling. The list of composers influenced by numeric systems in science is vast.

The recent enthusiastic celebration of the centenary of John Cage’s birth highlights another degree of engagement with ideas that came from non-musical sources. Cage’s adoption of the “I-Ching” and chance procedures is now par for the course in discussing 20th century compositional techniques. Yet chance operations were distinctly not a significant part of Western compositional techniques until Cage championed them in 1951, first with his piano piece, “Music of Changes,” quickly followed by the notorious silence piece “4’33.” ” Cage’s

concurrent studies in Zen Buddhism lead him to claim “all sounds are music,” freeing him to adopt techniques that rejected compositional subjectivity, such as rolling the dice, which were initially anathema to his European counterparts Boulez and Stockhausen.

How influential were these techniques to other composers? It perhaps depended on how daunting or approachable those techniques appeared to others, or how naturally they could be applied to other artistic concepts. There are thousands of preeminent living musicians, visual artists, dancers and theater directors who cite Cage as their major influence. Compared to someone like Xenakis whose mathematical structures were so unique, complicated, and idiosyncratic that few people dared to follow in his footsteps, Cage’s chance procedures, coupled with his openness to new ideas, were the source of many younger artists’ visions, in performance art, dance, theater and literature, as well in as music.

Csikszentmihalyi analyzed how a person enters the flow state, how one maintains flow (engaging in a task where the difficulty matches the ability), and the factors that cause one to leave the flow state — drifting toward other mental states of anxiety, relaxation, boredom, worry, arousal, etc. He was able to demonstrate that someone in flow loses a sense of self-consciousness: the activity is entirely rewarding in and of itself, as one gains a sense of personal control over the activity.

I was fascinated that someone could capture and articulate something so fleeting and magical as the precious moments when all things in the perceived universe merge to enhance one’s own engagement. Maybe it is a response to the multi-tasking overload of our smartphone age, but I found this theory more relevant today than ever before. For this concept to have meaning in my music, I realized that I needed to separate it from my composing process. I wasn’t looking to create a flow state in composing music, but rather, use this concept to organize my music in new and uncharted ways.

Being in flow can be applied to any context, doing any activity that offers its own rewards, whether playing a grandmaster chess match, performing in the N.B.A. playoffs, listening to music at home, or performing heart surgery. Csikszentmihalyi’s flow charts are insightful and instructive about how to maintain flow during an extended activity: first, one achieves a balance between ability and level of difficulty, then one increases difficulty as ability grows.

Interestingly, Csikszentmihalyi does not analyze the quality of work produced during this time. It is not important to him if the chess player wins or loses the match, or if the music written by the composer during these work sessions is great or tossed directly into the trash. Flow has been used to describe people in the act of composing, as well as audiences listening to music, but had never been used to structure a musical composition. So I thought it interesting to translate some of these flow concepts into tangible layering techniques to use in my compositions. With a bit of finessing, I transformed the flow principles and charts into compositional techniques, which I call flow filters.

For me the compositional process is one with many layers, first writing the music, then

translating the music through different flow filters. My earliest flow filters were quite simple and manipulated basic parameters easily defined through notation; dynamics (from pianissimo to fortissimo), register (low to high), intervals and timbral nuances (called extended techniques) such as sul ponticello-sul tasto, flautando, pizzicato, etc. These early filters draw similarities to the Serialist techniques of the 1950s but are applied to the music differently.

As my skill level with flow filters grew, I created greater compositional challenges. I expanded the role of flow filters to include non-technical parameters, such as “perceivable” or “identifiable” musical qualities (is this gesture more identifiable than that one?), motivic and rhythmic identity (from iconic to textural) and more.

The secret for me, in contrast to Cage’s chance operations, is to keep the flow filters in strange yet musical counterpoint with one another, creating a clear yet organic web of expansive musical references, and ultimately, a vast and elaborate musical experience.

This came at the right time: it provided a personal path beyond the brilliant and influential compositional techniques I learned from the music of Morton Feldman, Brian Ferneyhough, Debussy and others. Here was a new way for me to think about instrumental sound, to categorize sounds, and ultimately, to personalize them. By bouncing the materials back and forth, one navigates simultaneously through virtual Flow charts. And this was an open ended resource, since much in the same way the flow concept can be applied to any activity, so too can flow filters be applied to any music.

For an idea to gain traction, it needs to have utility as well as resonance. Brian Ferneyhough, known for virtuosic layering of sounds and textures, once told me that “every musical technique you write into your score, no matter how intricate or simple, can be heard, or at least felt, by the listener.”

Initially inspired to write “in flow” for solo violin, the flow concept was so salient that this solo piece became the first work in the hour-long “The Flow Cycle” for strings. Borrowing the subtitle of the third work for solo cello, each of these five composition “unfold from unity” into elaborate tapestries of sound. As the cycle expands from three solo works into chamber music, with the fourth work for violin and cello duo and culminating with “a cause du soleil” for string trio. Upon finishing this three-year project and finally presenting the CD to Csikszentmihalyi, his enthusiasm sparked him to ask if I was going to follow it up with music based on anxiety, boredom, arousal, relaxation and the other flow states. Just when I thought I was finished, his concept provided endless more possibilities.

Related: Watch a TED talk by Mihaly Csikszentmihalyi on flow.

Richard Carrick is a composer, pianist and conductor. He is co-co-founder of the contemporary music ensemble Either/Or, and currently teaches composition at Columbia University, New York University, and for the New York Philharmonic. “The Flow Cycle for Strings” was released on New World Records in 2011.

