

The boundary between art and science may appear a fixed and precise border: the objective and logical focus of science traditionally stands opposite the subjective and aesthetic aspect of art. Yet science and art share much in common, both functioning as human efforts to imitate, recreate, or understand the natural world. The term “art” itself can imply a pragmatic approach to a discipline (The Art of War or The Art of Electronics for example), an approach attained through study, observation, and practice—methods strikingly similar to those of science. Thus science and art are inexorably linked, a connection especially evinced through music theory.

Schenker once wrote that "music is always an art—in its composition, in its performance, even in its history. Under no circumstance is it a science." Noticeably absent from Schenker’s aphorism, however, is any mention of music theory. Certainly Schenker attempts to warn against applying formulaic, numerically consistent approaches to music, but such a broad discounting of scientific methods seems untenable. The definition of science—the identification, description, investigation, and theoretical explanation of phenomena—doubles easily as a definition for music theory.

This inherent overlap between art and science in the study of music has consistently acted as an underlying motive in my academic pursuits. Transferring to the music department at Cornell from a biochemistry major, I concentrated on theory and composition in the hope of truly comprehending the procedures of how to write music. My senior thesis of a forty-minute symphonic composition, however, left me feeling that while I could work through the writing of complicated forms and counterpoint, most of my compositional process was still trial and error.

Such intrinsic mysteries of musical creation vexed my scientific side. In a search for satisfaction, I enrolled in a Master’s program at NYU for music technology. The study of music technology offered a chance to understand the nature of recording, which, since its invention, has played a major role in the art of composition itself, particularly with more contemporary styles. My focus at NYU was tonmeister studies, a discipline interweaving science and art through an emphasis on the coordination of technical demands and musical skills in audio engineering. I also recently completed a degree in Electronics Engineering via distance learning. While this recent educational foray might seem an academic lark, the two years of devoted, solitary study helped bring my audio engineering abilities to a high level of technical proficiency.

While my education has been a balance of art and science, a purely academic track tends to emphasize theory over practice. Augmenting my NYU degree with real-world elements, I worked as a technical engineer at Right Track Recording. From famous solo artists to major motion picture orchestral soundtracks, the breadth of projects forged my training into a skill, a skill further burnished by my current post at the New School. My artistic side mimics this technical seasoning via a similar pragmatism, as I have composed music for a variety of theater productions, films, and radio stories since

Cornell, as well as written, arranged, and recorded hundreds of songs, each its own small experiment in form. Coupled with a classical training in cello and piano, my agility on guitar and bass allows me to directly tackle composition and analysis in a multitude of genres.

Through advanced studies in music theory, I hope to continue my attempts at unraveling the undocumented techniques of music composition. Music theory ultimately encompasses a two pronged approach: the first a theoretical, reductive method and the second a practical, constructive corollary. I am an adherent to the spirit of Schenkerian reductions, especially as codified by Salzer, but feel that some of the graphical notation could be streamlined to better elucidate compositional processes, especially to enable easier comparisons across a large body of works. Robert Gauldin's *A Practical Approach...* texts are excellent examples of how the voice-leading and prolongation explications of reductive analysis can be reapplied to an instructive compositional function, and it was through these books that I first became interested in Eastman's program. Many of Gauldin's topics deserve a more in-depth expansion using this same approach. Specifically, I am interested in more closely tracing the harmonic and contrapuntal tools used in Baroque dance suites, chorales, and other keyboard works. Many texts, for example, show how to realize a figured bass, but few explain how to write a stylistically accurate one under a given melody.

As the duality of art and science drives my interest in music theory, a duality of genres underpins my musical focus, too. Years of songwriting have led me to see patterns in song structure, especially as to how different types of germinal phrases engender certain formal constructions. Matthew Brown touches on this facet of composition when he discusses search strategies. His outlook that composition relates to problem-solving reveals the inherently practical side of theory. Songwriting also provides a compelling analytical situation in that thousands of examples exist, all attempting to resolve the same basic compositional issues, yet research has relied mostly on a piece-by-piece approach instead of a broader comparative overview. Such a perspective strengthens David Headlam's advocating of "a greater role for musical analysis in the study of rock music," although I would not necessarily want to limit my work to a single genre of songwriting as trends in one style can inform analytical questions in others.

Combined with my expertise in music technology, a terminal degree in music theory would make me a strong applicant for a collegiate teaching position, extending a pedagogical tradition in music that includes my grandfather, grandmother, mother, and brother. At the same time, a PhD program and eventual faculty post would be conducive to nurturing the large-scale analytical research needed to resolve my theoretical curiosities. So, like the equilibrium between pedagogy and research, practice and theory, or art and science, doctoral study in music theory would create a unique intersection at which I could further navigate towards understanding and explaining the mechanics of musical creation.