

## Book review

Psychology of Music

*Psychology of Music*

Copyright © 2009

Society for Education, Music  
and Psychology Research

vol 37(3): 378–380 [0305-7356

(200907) 37:3; 378–380]

10.1177/0305735609339476

<http://pom.sagepub.com>

STEVEN JAN, *The Memetics of Music: A Neo-Darwinian View of Musical Structure and Culture*. Surrey: Ashgate, 2007. 294 pp. 24 b/w illus., 42 music examples. ISBN 9780754655947 (hbk) £55.00

This book constitutes the first extended attempt to apply the theory of memetics to music, and represents the culmination to date of Steven Jan's earlier work in this area, reaching back over the last decade. Memetic theory stems from the notion of the 'meme', a term coined by Richard Dawkins in his seminal book *The Selfish Gene* (first published in 1976) to refer to a unit of human cultural information that can be replicated and evolve in a way analogous to the transfer and development of genes. In a now-celebrated passage, Dawkins gave examples of memes, including catchphrases, fashions in clothing, ways of making pots or building bridges, ideas and ... *tunes*. 'Just as genes propagate themselves in the gene pool by leaping from body to body via sperms or eggs, so memes propagate themselves by leaping from brain to brain via a process which, in the broad sense, can be called *imitation*' (Dawkins, 1976, p. 192).

So what is a musical 'meme'? In Chapter 2, Jan arrives at a definition by drawing on the principles of 'replicator theory' (Dawkins, 1976), which embraces the notions of 'longevity', 'fecundity' and 'copying-fidelity'. According to Jan, it is the last of these ('copying-fidelity') that suggests that 'small packets of musical information', in the form of 'discrete configurations of pitch and rhythm', are the most likely candidates for musical memes. Some have great resilience, surviving 'across the expanses of musical history by virtue of their being replicated in the works – and ultimately the brains – of successive generations of composers'. Moreover, in Chapter 3, Jan contends that the overwhelming majority of musical material is memetic; other than monads and dyads, any patterns that composers bring into being are almost always 'mutations of pre-assimilated memes and not *de novo* formulations' (p. 79).

Chapter 4 tackles the issue of evolutionary dynamics – the attributes that affect the transmission of musical memes between works, and the consequences of 'cumulative meme mutation'. According to Jan, it is their 'mutability, transmissibility and differential perceptual-cognitive salience' that drive diachronic change. He contends that higher-order musical systems reconfigure themselves non-teleologically over time as rules and dialects transmute, and that these large-scale, systemic changes arise from the relentless, low-level competition for survival between 'selfish memes' (p. 163). In Chapter 5, Jan moves out, as it were, from the close scrutiny of his subject matter, and looks at the impact of memetic transmission and selection on entire musical works, which he regards as 'super-ordinate level multimemetic complexes', comprising a multiplicity of memes and memeplexes

‘in selfish co-adaptation with each other’. According to this model, a musical work is nothing more than a temporary alliance of independent replicators, whose structure is determined by the precise topography of their interrelationships. Jan proposes (p. 203) that future research may permit the ‘location of compositions in multidimensional memetic hypervolumes to be mapped, and their synchronic and diachronic relationships ... to be tracked’ in terms of the accumulation of ‘selection steps’.

Chapter 6 takes a further step back to consider issues and methodologies in relation to memetics and music analysis. Memetic theory, Jan contends, offers the framework for musical meta-analysis – that is, ‘a means of understanding the structure and evolution of analytical theories as verbal-conceptual memplexes, subject to the same selection pressures as other such memplexes’ (p. 225). Finally, Chapter 7 offers a useful summary of the material covered in the book and also looks forward to what musical memetics may hold in prospect: Nothing less than a ‘new science’, argues Jan, which has the capacity to shift musicology away from a preoccupation with whole *works* to the properties of ‘selfish memes’ – the ‘independent building blocks and governing units’ of works of art.

So is the book, and ultimately the notion of musical memetics, a success? For sure, *The Memetics of Music* is a high-quality production, which draws extensively on musical examples and a range of literatures to drive its arguments home. Indeed, Jan makes his case with a certain relentlessness, and the structure of the text exudes a powerful sense of teleology that (the mischievous critic may argue) sits somewhat awkwardly alongside its anti-teleological content. Inevitably, in a new work of this length, there are details to quibble with. For example, Jan asserts that the proverbial monkey at the typewriter would be *guaranteed* to produce the sentence ‘METHINKS IT IS LIKE A WEASEL’ in 2728 attempts, which, of course, is not the case – the hypothetical simian could never be *assured* of producing the sentence, it is just that the odds would get shorter the more times that he or she tried. But the real test of the book, and the theory, in musicological terms, is not whether the occasional ‘t’ is dotted instead of an ‘i’, but whether it delivers fresh, authoritative, critical insight. And this is where the problem arises.

As I listen, for example, to the opening of Wagner’s *Tristan and Isolde*, it may well inform my appreciation of the work to be aware of its potential harmonic and melodic precursors in Mozart, Beethoven, Schubert, Spohr and Liszt (pp. 148–150); but do I need to think of these as ‘memes’? Would not the other ‘m’ word (‘motifs’) do just as well? What does it add to my understanding to think of these groups of notes metaphorically as ‘selfish’? No matter how long we were to wait for an imaginary musical meme machine, which somehow was able to choose motifs on the basis of their ‘longevity’, ‘fecundity’ and ‘copying-fidelity’, it would not, we may reasonably presume, compose *Tristan* – even after even 2728 iterations! It needs a *composer* to do that, someone to select and manipulate material *according to aesthetic ends*. The fact that one could ultimately demonstrate that every note of the opera was presaged elsewhere would really be to miss the point. It is the sense of derivation of material *within* works that enables us to make sense of them (Ockelford, 2005).

Naturally, this is not to say that the evolution of musical material through human selection is not interesting or important. But it is *musical minds* that

determine what they find salient; it is *humans* who have the power consciously to choose to use material – even material that could be considered to be memetically ‘weak’ – in order to create a particular effect; and it is *people* who, for musical and extra-musical reasons, determine what music they (and others) will listen to, what will become popular – and ultimately, what will ‘survive’. Self-determination does not reside in patterns of notes, and while the memetic metaphor can initially be intoxicating it is also, arguably, something of a musicological garden path. Now, it may be that this metaphorical meme is itself misplaced, and musical memetics may yet evolve (whether through human design or through the selfish desire of its individual concepts to replicate themselves) into a science that delivers influential new musical insights that could not be derived using the conceptual tools that musicologists currently have at their disposal. At the moment, though, one senses that the importance of Jan’s expansion of Dawkins’ original insight lies in the fact that music can be considered memetically, rather than what memetics can offer our understanding of music.

## REFERENCES

- Dawkins, R. (1976). *The selfish gene*. Oxford: Oxford University Press.  
Ockelford, A. (2005). ‘Musical structure, content and aesthetic response: Beethoven’s Op. 110’, *Journal of the Royal Musical Association*, 129(2), 112–115.

**Adam Ockelford**