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Music as a Metaphor for Thesis Writing

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In the final throws of writing a doctoral thesis the struggle was to find a structure for presenting the vast amounts of literature that had to be integrated and synthesised to form a coherent whole and linking psychology and music, the basis for my thesis. As a systems theorist and adherent to social constructionist views, the metaphor plays an important role in constructing realities, and the framework that came to mind for structuring and presenting my thesis was that of the concerto from the Western classical music genre. In this paper I will explain how this metaphor was used for organising and structuring my research and presenting a systems paradigm as a coherent whole.

Key Words: Music Metaphor, Classical Concerto, Co-Construction of Realities, Social Constructionism, Thesis Writing

1. Introduction

The challenge that students at postgraduate level often face when doing research is to make sense of the mounds of literature surveys, data and analysis. They struggle to find a framework that will act as a tool to compile their dissertations or theses into coherent wholes. Representing a study in the form of a dissertation or thesis is a major task that becomes even more laborious when re-presenting qualitative data. Chenail (1995) postulates that we, as qualitative researchers, make all sorts of choices when developing our research but that we are "not very good at sharing these decisions, and the rationales for these choices in our presentations of our work."

The main challenge is to find a framework for representing the end product of a long and intensive search that will convince the reader of the legitimacy of the scientific endeavour. The framework has to coincide with the paradigmatic point of departure and the theoretical stance in the co-constructing of a plausible research reality. A problem that faces these young researchers is that the process of writing a thesis often limits their creative potential, even posing the threat of "writers block" when it comes to composing the final document of their scientific search for "truthful knowledge" (Mouton, 2000, p.138). As a music psychologist and researcher, this problem was very relevant to me in the final throws of writing my doctoral thesis. I experienced the process as inhibiting my representational capabilities and preventing me from conceptualising the vivid and multiple research realities that emerged in the process.

2. Background

Writing a doctoral thesis that entails theory development and the conceptualisation of a model for understanding, explaining and describing the complex nature of person-music[1] interactive systems, implies vast amounts of literature that have to be integrated and synthesised to form a coherent whole. Finding a framework that can link the major themes of whole systems, social constructionism, music and psychology is not an easy task. It requires ingenuity and creativity to write a comprehensive yet parsimonious thesis that will be plausible and user friendly.

Attempting to understand and explain the role of music in the individual's life, and the way in which people interact with music in diverse temporal-spatial contexts, implies the development of a conceptual model for observing the multiple realities relevant to person-music interactions. However, theory building and model conceptualisation entail deductive reasoning of a more formal nature. It requires a critical evaluation of existing models, divergent thinking and meta-level abstraction. Although philosophical suppositions are investigated on an abstract level, it also requires creativity and intuition to formulate the meta-theses that will underlie the theory (Madsen, 1988). In the world of meta-science reflection becomes an important process that focuses the endeavours of the researcher towards ontological (nature of being) and epistemological (nature of knowing) debates in scientific inquiry. The most pressing questions are related to meaning and explanation, coherence between theoretical propositions, and a set of postulates that are formulated to be true for the phenomena in the world.

Whereas a theory is a set of statements that makes explanatory or causal claims about a reality, a model aims to represent a phenomenon or set of phenomena as accurately as possible (Mouton, 2000; Van Schalkwyk, 1998). The theoretical propositions for a dissertation or thesis usually evolve from an extensive search for meaning and explanation amongst the body of scholarship already existing in scientific journals and texts. This is the same whether one develops a conceptual model for the person-music interactive system, or for any other research. An ontological-epistemological debate evolves between researcher and the existing scholarship.

Music is undeniably part of each person's everyday life and it has been aptly described by some as 'the world-wide feature of life'. The complexity of person-music systems proposes phenomena for investigation related to a variety of scientific endeavours. Music psychology is the interdisciplinary science that shares boundaries with music, musicology, psychology, education, sociology, anthropology and cognitive sciences. In this regard, Hargreaves and North explain that "music cuts across a number of different psychological processes (perception, creation, cognition, skill, learning, and so on)" (1997, p. 3). Social psychology of music as a sub-discipline of music psychology therefore focuses on "the scientific study of the reciprocal influence of the individual and his or her social context" (Hewstone & Manstead cited in Hargreaves & North, 1997, p. 5). In my research I attempted to construct a coherent framework to understand, explain and describe the vast array of intra-personal, interpersonal and social systems involved when the person and the music transact to emerge as a whole system of intentional activity and musical practice (Van Schalkwyk, 1998).

One of the propositions in the systems paradigm for music psychology postulates that music realities evolve co-creatively within complex person-music systems (Van Schalkwyk, 1998, p. 104). Music as a whole system co-evolves from diverse human practices in multi-dimensional contexts and in interaction with the universe of observed sound (Elliott, 1994), as manifestations

of multiple musical realities and shared meanings that regulate and organise these practices. Metaphorically speaking music "gathers and stores" information in the associations and analogies attributed to it by humans, and the music expresses this "information" in the interaction with the individual within the person-music system in different contexts.

Person-music whole systems are meaning generating in that individuals and groups co-create analogies, symbols and associations in an attempt to understand and explain their intentional activity in interaction with the universe of sound. These "musical symbols *and associations* [italics added] differ from culture to culture…*and* [italics added] no single style of music is meaningful to every culture" (Davis, Gfeller, & Thaut, 1999, p. 51). Thus a music metaphor represents symbolic meaning of cultural values and universal principles relevant to the person-music system within which it is co-constructed.

In my research a whole systems approach provided for the formulation of propositions and basic assumptions for a systems paradigm for music psychology. A research system emerged according to which complex multi-dimensional systems of person-music interaction can be investigated and co-constructed. The scientific value of the process is often unpredictable and multi-final. However, a conceptual model was formulated that is proposed to be sufficiently generic in nature so as to account for the diverse musical realities to be understood and explained. As such it had to be comprehensive enough to describe complex person-music systems emerging within diverse musical practices in different cultures.

3. Method

However, the process of conceptualising the systems paradigm for music psychology also has value for explaining and describing the complexities encountered in any other research process. In this article I want to explain, using my own experience of conceptualising the model for music-psychology, how music can act as metaphor for thesis writing. It will be an attempt to show how the end product, the dissertation or thesis, evolved as a co-creative and self-reflective dialogue between the existing body of knowledge, the actual research and myself as the researcher as a whole system of intentional activity.

The world of science and scientific research distinguishes itself from everyday life and lay knowledge in that it supposes a mode of enquiry aimed at finding "truthful knowledge" providing plausible descriptions, models and theories of the world or phenomenon under investigation. Knowledge can be regarded as a whole system reciprocally linked to the context in which it is created. Since this paper can be classified as non-empirical and philosophical, based on personal experience, the data is mainly of a textual nature (Mouton, 2000, p. 178). This calls for a method of selecting and analysing "texts" in the search for coherence and linkage. The "texts" are musical forms in the Western classical music tradition, as well as descriptions of my experience in using the music metaphor for conceptualising my thesis.

As a systems theorist and adherent to social constructionist I view the metaphor as playing an important role in co-constructing realities, also research realities. Many theorists have attempted a definition of metaphor that can describe its value and usage, such as Burke describing "metaphor as a device for seeing something in terms of something else. It brings out the thisness

of a that, or the thatness of a this" (Burke, 1945/1969, p. 503). Bipin Indurkhya (1992) explains a metaphor as "an unconventional way of describing (or representing) some object, event or situation (real or imagined)" (p. 246). The process underlying the use of metaphors is essentially that of projection, an unconventional way of interpreting the concept network in a different context or target realm (Indurkhya, 1992). Multiple realities can be constructed from the same metaphor, whereas many metaphors can be conjugated to construe one consensual domain of meaning or reality. This is specifically relevant when co-constructing a theoretical model and conceptual framework for further research.

4. Discussion

In systems thinking metaphors are generally accepted for constructing realities about life. But can they be used for construing research realities? Finding a metaphor that can link the logical and analytical requirements of science calls for a strong measure of co-operation between the elements and a level of order and structure created by the combined efforts of all sub-systems. This requires creativity to find "projective (similarity-creating) methaphors…[where] the source concept network is interpreted in the target realm, as if the target realm is being encountered for the first time" (Indurkhya, 1992, p. 281).

A musical composition reflects such structure and co-operation in the way the elements work together to form a coherent whole (Minai, 1995; Van Schalkwyk, 1998). According to Merriam (1964), music also reflects the values and behaviours of a given culture, such as the analytic and logical mind of the culture of science. Other music cultures, such as the African music practice and specifically the polyrhythmic structures of certain ceremonial rituals, have their own intuitive logic and underlying behavioural patterns.

Expanding the knowledge system and attempting to establish a conceptual framework as a theory and model for future scientific endeavour in music psychology, presupposes a primarily unconscious ontology and epistemology that cannot be separated from the history of the individual as researcher. This presupposes that the researcher's history informs the research process and the way he or she goes about conceptualising the ensuing ontological and epistemological debate. Bateson (1972, p. 314), an important exponent of systems theory in the social sciences, postulates that the researcher holds:

...beliefs about what sort of world it is [i.e. ontological premises], which will determine how he sees it [i.e. epistemological premises] and acts within it, and his ways of perceiving [i.e. epistemological premises] and acting will determine his beliefs about its nature [i.e. ontological premises].

Music as a metaphor for life itself provides us with the ontological premises telling us what sort of world it is we live in. It also determines our epistemological premises, the way in which we see the world as an interrelated system of embedded systems.

4.1. Music as metaphor for representing the scientific dialogue

When one thinks of communication, also communicating scientific knowledge, it entails the utilisation of words as abstract symbols that convey messages and meanings. Music is also a form of communication using abstract symbols to transfer meaning. According to the referentialist point of view, the "musical sound reminds us of or mirrors…events in life" (Langer in Davis et al., 1999, p. 48), whereas the expressionistic point of view has it that "meaning…is embodied, or found directly, in the musical structure itself" (Davis et al., 1999, p. 48). As a metaphor for communicating or re-presenting scientific knowledge, music provides a link between the values and intentional activities of scientific practice and person-music systems from different cultural contexts. The associations provide a framework for presenting the theoretical propositions as a coherent model, linking the exploratory and predictive potential of the theory with the central theme of the thesis, in this case person-music systems.

Representing a body of knowledge in a doctoral thesis requires a mode of communication conveyed in written symbols without the non-verbal cues that form part of other forms of communication. Traditionally the material for a thesis is presented in logical and clear arguments using deductive, inductive and retroductive reasoning for constructing viewpoints and propositions proposed in the theory. These propositions are structured in a way that aims at convincing the reader that "the evidence that you present provides overwhelming support for the conclusions that you draw" (Mouton, 2000, p. 120). The main rhetoric of a scientific thesis is that one has to write in an academically acceptable manner using linguistic categories and topology for describing and explaining linkages between facts.

In the process of writing the thesis, I found that certain patterns emerged that displayed striking similarity to a composition and the intentional creative activity of the composer-music system. What emerged was an unconventional cognitive relation between the concept network of music and the ontology of the target realm (thesis writing) (Indurkhya, 1992). According to the Western music tradition the music system is described as a structured whole known as a *composition* (Kamien, 1996). In the composition the sound (timbre, pitch, time and dynamics) and musical (rhythm, melody and harmony) elements interact within a specific time and space and according to the criteria of the specific music tradition (e.g., Western music tradition) to be organised as a whole system of structural-functional fit. The structural fit of the elements, the relationships between the elements, and the organisation of the whole differ for each composition. In the dialogue between the sound and musical elements, as well as the context of the sound medium, the composition evolves as a whole system of emergent properties.

However, in our understanding music and a musical composition cannot organise itself. It is the product of the intentional activity of the *composer-music system*. The composer (musician) (a 'doer') organises and integrates the elements ('some kind of doing'), to co-create a composition ('something done') within a given context that defines the process of doing (Elliott, 1994; Van Schalkwyk, 1998). Through repetition, contrasting and variation "a composer creates something cohesive…one thought grows from another, and all parts are interrelated" (Kamien, 1996, p. 72). The intentional activity of the composer-music system evolves in much the same way as the process of conceptualising a model for understanding and explaining a particular phenomenon.

The thesis is like a composition and the researcher the composer. The process or intentional activity is a co-creative dialogue (some kind of doing) between the researcher (a doer), the body

of scholarship and the conceptualising of theoretical propositions for a coherent model (something done) within a given context. In this process of 'doing something' the researcher becomes aware that the timbre (tone or inflections), pitch (slant or bias), time (duration) and dynamics (plausibility and forcefulness) of many viewpoints may differ, although they merge together in the co-construction of new arguments and viewpoints. The rhythm is set in the alternation between supportive and new arguments, whereas the melody is found in the flow of clear and precise language. On the whole, through the intentional activity of conceptualising the coherent representation of the research, propositions and suppositions are bounded together in harmony, and ideas alternate similarly to the different related tonalities in a musical composition.

In the composition the composer interacts with the different elements to formulate a variety of themes where any one or more of the elements may be altered or varied. Thus the tone or inflection can vary according to a change in the slant that is taken when a new argument is introduced. Changing the tonality brings about the inception of a voice or a different argument in the dialogue between the composer, the elements and the context. The researcher poses different arguments, either his or her own or that of the body of scholarship, as theses or themes to co-construct new viewpoints and find a synthesis.

Going about it in this way, the composition and the composer-music system reflects a relatively high degree of organisation and little disorganisation that ensures continuous interaction and dialogue. The dialogue evolves in the relationship patterns and processes of information transformation representative of the total ecology of whole system structural-functional fit. The thesis, just like the composition, emerges as a coherent and unique whole reflecting continuity and linking the themes in co-creating new realities of scientific value.

4.2. Musical form as structure for the thesis

Concerning the overall structure of the thesis and the process of writing a thesis the musical form, a specific way of combining the elements in the composition towards a coherent whole, provides another metaphor for organising the many propositions, assumptions and ideas. The classical concerto is a musical composition consisting of different parts all working together to form a whole, and a very appropriate metaphor for conceptualising the unique dialogue that emerges between researcher, the body of scholarship, and the reader.

A classical concerto…combines the soloist's virtuosity and interpretative abilities with the orchestra's wide range of tone color and dynamics. Emerging from this encounter is a contrast of ideas and sound that is dramatic and satisfying. The soloist is very much the star, and all his or her talents are needed in this challenging dialogue. (Kamien, 1996, p. 232)

The researcher is the star, the soloist, playing his or her part against the wide range of ideas and postulates of the "orchestra" - the scholarship of past and present researchers of the interaction between person and music. It is a dynamic relationship that emerges as a contrast of ideas and propositions both challenging and satisfying. The classical love of balance is also evident in the concerto, for the soloist and the orchestra are equally important, co-creating an "interplay of lines and a spirit of give-and-take" (Kamien, 1996, p. 232). In the ensuing "performance" or representation of the literature, data and analyses, the soloist or researcher attempts to convince

the audience or reader of the emotive and expressive qualities of the patterns and processes that evolved from the co-creative dialogue between the literature and him or herself.

The sonata form, the first movement of the classical concerto, is an example of how the sound and musical elements are organised by the composer to form a coherent whole. In this regard I found the musical form to be a suggestive metaphor (Indurkhya, 1992) where the concept network of the sonata form is used to provide an initial ontology for describing the different sections of the thesis. The metaphor became the vehicle for organising and systematising the information in the different chapters so that the thesis could evolve as a coherent whole creating a continuity of ideas, and developing the theoretical propositions as themes in a dynamic unitary system.

Let me then interpret this suggestive metaphor, the sonata as musical form, to elucidate the autonomous structure of thesis writing.

A. Overture:

The orchestral introduction serves as the first of two expositions. It is a special kind of exposition where the "orchestra" presents several themes and sets the mood for the entrance of the soloist. In this section the problems and core issues of the study are stated providing the rationale for the research, for example conceptualising a new paradigm for music psychology, or discovering the gap between business and environment discourses. The themes are introduced as predictions of what the reader can expect to find later on, and the context for the debate is mapped so that the soloist can enter with his or her own creative expertise.

B. Exposition:

In this section the main themes are presented and the conflicting ideas create a feeling of tension and forward motion. Since my thesis was aimed towards theory building, the exposition contained the ontological issues and historical views on the interaction between person and music. Descriptions of person-music systems in healing practices and interventions, music education and social psychology of music were placed against the historical background of Western musicology and the epistemological problems related to the philosophy of science.

The first 'theme', usually the literature survey chapter, sets the scene for presenting conflicting and supportive ideas and postulates the tensions that exist within the scientific debate. The tone of this first theme is presented in a tonality (pitch) that expresses the slants and biases that developed over time and incorporate the dynamics of the body of scholarship. When the second theme emerges in the next chapter, the heuristic value of general systems theory and cybernetics as an alternative model for understanding and explaining person-music interactive systems is investigated. The tonality changes, the rhythm alternates, and the melody propose a new slant to understanding the phenomena. This closing theme of the exposition also sets the scene for the new treatment of the themes in the second major part of the whole, the development.

C. Development:

"The development is often the most dramatic section of the movement. The listener may be kept off balance as the music moves restlessly through several different keys. Through these rapid modulations, the harmonic tension is heightened" (Kamien, 1996, p. 219). In thesis writing, this section emerges as the dramatic deconstruction of themes and a challenging of the voices of the previous section towards a combination of new themes or propositions. Changes are proposed in the complex polyphonic texture of rapidly moving themes, harmonies, and voices, contrasting the existing scholarship with new ideas. The tension builds up demanding resolution.

Developing a new conceptual framework or theory is a dramatic event. It involves views that are conflicting and challenging, new viewpoints that have to be integrated and synthesised towards alternative propositions. It challenges traditional ways of describing music and psychology, and the interactions between, for example, person and music. In my attempt to describe this alternative framework for understanding and explaining person-music interaction I had to account for the emerging properties of the whole system where both music and individual transacts in the dynamic dialogue within multi-dimensional temporal-spatial contexts. Systems theory concepts and person-music interactions were challenged and re-conceptualised in order to postulate the new conceptual framework. The heuristic research questions related to the concepts, patterns and processes, formed the elements of a new perspective for understanding, explaining and describing person-music whole systems. Concepts such as subjective and inter-subjective meaning, and co-construction of multiple realities were also added to represent a comprehensive yet parsimonious paradigm.

D. Recapitulation:

"The beginning of the recapitulation brings resolution, as we again hear the first theme" (Kamien, 1996, p. 220). The tensions of the exposition and the development are resolved by systematising the main themes as propositions for future hypotheses and data-theses. Through restating and re-conceptualising the themes a link is created between the different viewpoints and the new body of knowledge. Very much in line with the Western philosophy of science and the cybernetic epistemology of inter-determinism and reciprocity, a research system and related methodology are thus represented in the recapitulation section.

When writing a dissertation or thesis, this section is of great importance. The clarity of the research design and the discussion of the data and analyses have to be linked to the previous sections in order to create a coherent whole. The themes are re-presented and re-constructed taking into account the development that has taken place in the previous section. The original tonality re-emerges bringing a sense of conclusion to the process and completing the full circle of the reciprocal research endeavour. The data and analysis inform the original ideas and arguments to bring about a new perspective and expand scientific knowledge.

E. Cadenza/coda:

The coda is the final resolution of themes posed in the previous sections, and "an even more powerful feeling of conclusion is attained…by repeating themes or developing them further" (Kamien, 1996, p. 220). In the classical era, the soloist was often also the composer and in the cadenza he or she expressed his or her creative and integrative capabilities to the fullest, moving towards stability and a final resolution of the preceding conflicting themes and statements. In the

final instance of thesis writing, reflective comments are necessary and through the process of self-reflection and self-reference the researcher offers a dynamic integration of the study as a whole. However, the cadenza may also leave open the possibility of further development of the themes, as does the concluding chapter in the thesis where opportunities for future research and interpretation can also be proposed.

4.3. Music metaphor for conceptualisation of the content

The above indicates how the metaphor of the classical concerto according to the Western music tradition can be used as a conceptual framework for organising and structuring a dissertation or thesis. However, in thesis writing the researcher is also confronted with the notion of expressing the content in coherent and consistent fashion. The propositions, concepts and theses have to be reflected on in such a manner so as to convince the reader that the content forms a meaningful whole. Bringing together all the propositions and concepts and conceptualising the content requires a different use of the metaphor. It now becomes, what Indurkhya calls the "projective metaphor" requiring the ability to "break the shackles of one's language and culture, and to be able to ungroup and regroup the data set into different meaningful patterns" (1992, p. 281).

In my thesis writing and working within the African context, finding a projective metaphor for coherently expressing my proposed model, encouraged me to also look to the African music tradition. A characteristic of African music is the way in which it expresses the relationships between the parts and the way in which the musical practices reflect "...that quality of making a musical group work perfectly together" (Tracey, 1986, p. 13). Using a metaphor from the African music genre became like a self-referential tool that pulled together the parts of the content and helped me to construct a perfectly working whole.

In many ways African music reflects a paradox. Co-operation, participation and co-constructing music realities as intentional activities of person-music systems collaborate with ideas of difference and conflict. But "difference and conflict between parts is a structural rule of African music, just as much as co-operation, the other side of the mirror" (Tracey, 1986, p. 15). It acknowledges the coherent dialogue of relational patterns and conflicting rhythms and provides a metaphor for expressing cybernetic complementarities. The paradoxes and patterns emerging as properties of the person-music system in an African context proposes a parallel logic for observation of the differences and similarities that "…make a difference" (Keeney & Morris, 1985), and for describing the new perspectives that evolve from a research project.

Similarity-creating metaphors have the possibility of constructing new perspectives by "disregarding the existing ontology of the target environment" (Indurkhya, 1992, p. 275) and describe some perceived differences and similarities in new ways. When writing a dissertation or thesis many differences and similarities are combined in the content in an attempt to present a new understanding or to expand existing understanding. African music provides such a similarity-creating metaphor that can assist in thesis writing.

In African music, difference and conflict are used to stress the importance, individuality and communality of the voices or rhythms. These patterns and processes for amplification can be contrasted with the Western musical practice for accentuating parts by duplicating them. Tracey
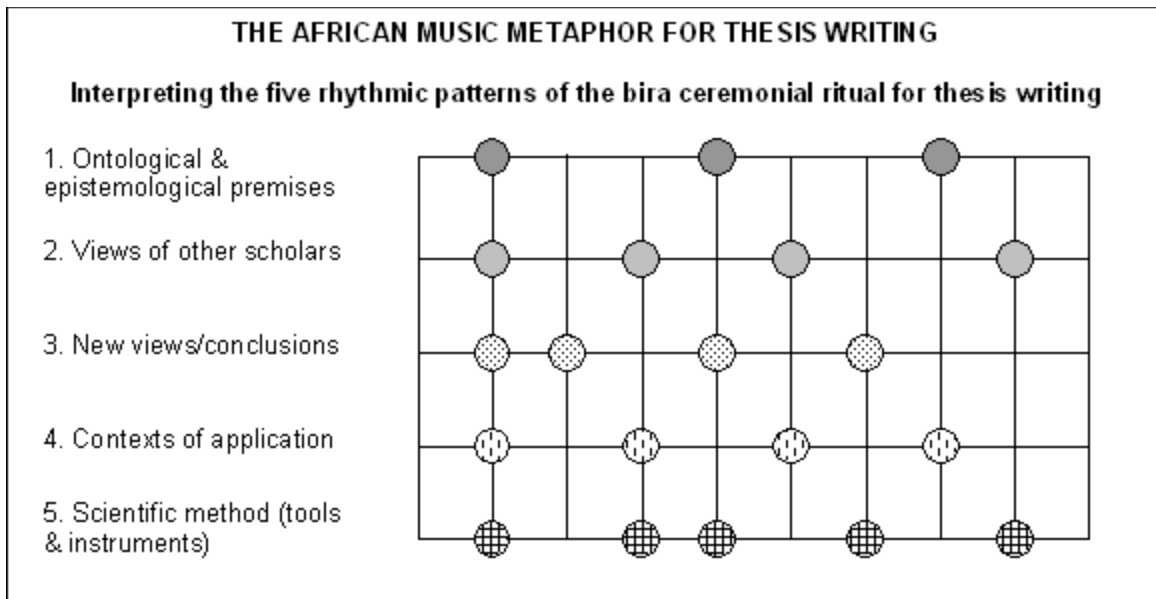
([1986](#)) postulates that such an approach to accentuating rather contributes to a weakening of the voice or rhythm. In African music the importance of the individual's contribution to a complex people-music system can be observed in a kind of parallel logic evolving from the co-constructing of multiple realities, each contributing his or her own voice or rhythm to the whole. The researcher's 'voice' is added to the comprehensive realm of scientific understanding.

The concept network of African music provides an interesting metaphor for describing the target realm (the dissertation or thesis). In the polyrhythmic structures of African music where "one rhythm defines another...'One person defines another'" (Tracey, [1986](#), p. 17), we can also observe co-operation and conflict, dependence and independence, communality and individuality of thesis writing. The rhythms are simultaneously sounded patterns (viewpoints or propositions) that emerge in a complex whole of interdependent and interrelated patterns of sound (a coherent whole of new knowledge). These rhythms do not move *against* each other, but evolve in parallel logic as metaphor for co-operation, coherent unitary functioning and shared meaning in social systems (Hanson, [1995](#); Van Schalkwyk, [1998](#)). Life rhythms and the rhythmic patterns emerging within, for example, the person-music community (also those evolving within the scientific community) are essentially polyrhythmic and move together to form a dynamic whole of circular processes and reciprocal patterns of scientific writing.

As an example of how the African music metaphor can be interpreted as source concept network, let me explain the polyrhythmic inherent in a Shona "bira" ceremony (Tracey, [1986](#)). In the bira ceremony communality is emphasised by the way in which five complementary rhythms bind the singers, dancers and instrumentalists. According to the structure of the bira ceremony, the intentional activity of the people-music system emerges in a ritual ceremony. Similarly the intentional activity of the researcher, all the actions, reactions and counter actions underlying the study, emerge in a ritual for conceptualising the investigation, and representing the data in a manner that will explain and describe the phenomenon under scrutiny.

The 'singers' in the bira ceremony are the different voices from the body of scholarship, the propositions, concepts and constructs, past and present. The 'dancers' are the new propositions and conclusions that researcher brings into the dialogue with the existing body of knowledge. Finally, the 'instruments' are the research system and the tools used to investigate the phenomenon. These all evolve as a five-part polyrhythmic whole, a ceremonial ritual where there are different rhythmic patterns that complement each other but remain different in order to amplify the multi-variant and inter-related complexity of the research process. A visual representation of the five "rhythmic patterns" of the bira ceremony in this African music metaphor is given below to show how the different voices, dancers and instruments relate in the process of thesis writing and form a coherent whole ([Figure 1](#)).

Figure 1 A five part polyrhythmic structure for thesis writing[2](#)

THE AFRICAN MUSIC METAPHOR FOR THESIS WRITING

Interpreting the five rhythmic patterns of the bira ceremonial ritual for thesis writing

1. Ontological & epistemological premises
2. Views of other scholars
3. New views/conclusions
4. Contexts of application
5. Scientific method (tools & instruments)

5. Conclusion - The final chord

In this article the author attempted to point out how a music metaphor can be used for thesis writing, engaging the "texts" from the classical Western music tradition and the polyrhythmic patterns of an African ceremonial ritual. These "texts" supply a metaphor to describe the research process in creative ways while adhering to the rhetoric of scientific writing. True to the nature of a metaphor it was made meaningful by interpreting the source concept network unconventionally in the target. It is a subjective activity and the meanings evoked in the interpretations are in themselves quite subjective. Furthermore, this music metaphor for thesis writing is asymmetric in that the reversal (describing music in terms of a scientific thesis) will not necessarily be a metaphor any more (Indurkhya, 1992).

However, the music metaphor serves as a conceptual framework for understanding the intentional activity of research and the dynamic dialogue that emerges from the relationship between researcher and research realities. The sonata form provides a model for mapping the territory of the thesis and organising and structuring the thesis as a coherent whole while maintaining continuity and linking the themes. The polyrhythmic ceremonial ritual from the African music practices is another metaphor for conceptualising and describing the complexities of the research process. Other music metaphors can also be used and it lies with the reader to choose a target when interpreting his or her own research endeavours metaphorically.

Even concerning the reader's position with regard to this article a music metaphor prevails. The reader emerges as the listener-music system similar to the researcher who emerges as a composer-music system. Like the listener to music, the reader becomes involved in 'listening' to the 'voices' of the author and unconventionally interpreting the text based on his or her imaginative potential and associations.

Even when there is a rather unambiguous interpretation of the source in applying it to the target unconventionally, there are other connotations that might be present, which heighten the emotive force of the metaphor differently for different readers (Indurkhya, 1992, p. 19).

In this manner the listener or reader shapes the metaphor by becoming a participant in co-creating realities when reading this (or any other) article interpreting the text based on his or her imaginative potential. This can be done because I used a similarity-based suggestive metaphor and the similarities between the source concepts (the music) and the target (thesis writing) are clear. It can also be done because the subjective meanings are implicit in the metaphor that I used and the interpretation is mostly conventional. On the other hand the listener to music and the reader of this article can integrate the troublesome concepts and symbols (music, words and phrases) in an unconventional way and through the process of projection see the different patterns and modes of reality.

The propositions and assumptions are trans-empirical and not rigid, universal truths. The concerto has been performed. In the words of Gergen (2000), I imagine the reader as an interested friend listening to the concerto and getting to know me through the rhythms and melodies of my performance. However, the reader can do what he or she wishes with these words, just as the listener can construct meanings he or she wants when listening to a performance. In the overture, exposition, development, recapitulation and cadensa the author as the soloist in this unique "performance", connects with the audience (the readers and users) on both a structural and functional level. Through a wide range of rhythmic patterns (concepts, constructs and propositions), a similarity-creating music metaphor is used to describe the processes of thesis writing. The processes, interactions and relationships that evolve between the readers and the author, are ongoing and require adaptation and change in order for more variations to emerge upon this theme. It is a ritual ceremony and the outcomes are progressive and multifinal.

Music is the language of feeling. We none of us know, or speak it, in its full perfection as yet. An earnest endeavour to attain some richer appreciation of its charms, or to acquire some higher power in the expression of its meaning, will undoubtedly bring with it a reward of inestimable worth. Exalt art, and art will elevate you (Josiah Booth, title page in Davies, 1978).

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End Notes

[1] For the purpose of further discussion, **music** is used as a generic construct for any music system that evolves from the interaction between the individual and the sound universe. A music system is defined as a whole system of emerging properties where sound and musical elements interact within a specific time in space evolving from the context as a structural-functional whole (Van Schalkwyk, 1998).

[2] Although reference is made to five "rhythms" in this example, similarities can be derived from this African music metaphor for any other research object or content. In such an instance the polyrhythmic structure may also vary and more or less voices/rhythms may be 'heard'.

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