

The Moving Force of Gestures: Gestural Transformation in the *Serioso* from Hannes Taljaard's *Four Essays* (2001-2005)

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Hannes Taljaard's string quartet *Four Essays* is a quintessential work in the South African string quartet literature. Various layers of ambivalence and ambiguity in this work make it a cognitively rich work to listeners and analysts. This article is an analysis of the first movement, *Serioso*, that shows the composer's complex compositional technique against the backdrop of influences of metaphors in music, Indian Music and Bharatanatyam, musical gestures, musical forces, Set Theory, French poetry, and lullabies. As with many creative individuals, their lives and their creative outputs are mutually shaped. That is one of the fundamental aspects that are elucidated through the analysis presented in this article. I focus mainly on the thematic material of the work and statements that are based on what Taljaard refers to as the 'protostatement'.

1. Introduction

Conversations with Hannes Taljaard often centre around his passionate interest in movement and gesture in music, two integral aspects of his approach to composition, exemplified in his seminal work for string quartet, *Four Essays*. This is a composition that goes much deeper on conceptual levels than mere thoughts about the sound of the instruments. One can go as far as calling *Four Essays* a psychobiographical personification of the composer. Suzanne Martens (2017, ii) wrote her doctoral thesis on the string quartets by South African composers between 1940 and 2016. She compiled a catalogue with a total of 180 string quartets, one of these quartets is *Four Essays* by Hannes Taljaard. Martens's (2017) thesis is the only published literature available on the composition.

As a student of Taljaard, I had the privilege to attend several of his talks, guest lectures, lecture

demonstrations and research papers about his music. We also had numerous conversations and in-depth discussions about his compositional approach.

Taljaard (in Martens 2017, 60-61) points out four challenges for South African composers regarding the composition and performance of string quartets:

- Composers have to secure a focus for the many possibilities offered by the string instruments. Taljaard's focus in *Four Essays* was musical gestures (Taljaard, 2020).
- The transparency of the string quartet as a medium can lead to misjudgements by composers and these only become known after a performance. This observation is relevant to the last movement of *Four Essays* – which was recomposed after the first performance because Taljaard found it unbalanced

in comparison with the other movements (Taljaard, 2020).

- There is a dismally small possibility that the work will be performed by a South African string quartet due to the lack of funding and of new music string quartets. *Four Essays* was performed in 2004 by a Flemish string quartet (Rubio Quartet) at the University of Pretoria and only once again at the North-West University.
- South African composers have limited opportunities to attend live performances of string quartets. Taljaard, on the other hand, had various opportunities to attend string quartet performances in Europe where he heard string quartets that range from early works to more recent – and sometimes experimental – work (Taljaard 2020).

From the above it becomes clear that Taljaard was aware of, but not discouraged by, the challenges in composing a contemporary string quartet work and he spent four years completing this large-scale quartet. Due to the fact that this is one of Taljaard's seminal compositions in importance of his oeuvre, I chose to analyse this work specifically as part of this 50th birthday celebration node presented in this journal. My general objective is to facilitate a better understanding of the work and of Taljaard's compositional technique, and to bring this work to a larger audience.

In this article my specific aim is to elucidate aspects of Taljaard's compositional technique and provide an analysis of the *Serioso*, the first movement of *Four Essays*. I precede my analysis with a discussion of the inspirations for and influences on this work to clarify some of my analytical findings.¹

1.1. Background of *Four Essays*

Four Essays for string quartet was composed between 2001 and 2005 as part of Taljaard's Doctorate of Music in Composition portfolio completed at the North-West University under Jeanne Zaidel-Rudolph. It is one of three works for string quartet originally

composed by Taljaard: the other two works are *Paracuartetodecuerda* (1997) and *Movement for String Quartet* (1998)² were both withdrawn, leaving *Four Essays* as Taljaard's only string quartet. This work of approximately 25 minutes consists of four movements: *Serioso*, *Intermezzo*, *Scherzo*, and *Lyrico*.³ The first performance and recording were by the (Flemish) Rubio Quartet⁴ on 26 September 2004 at the University of Pretoria, followed by another performance by the same quartet on 28 September 2004 at the North-West University.⁵ The last movement, *Lyrico*, was completely reworked after the first performance.

Although the title seems to indicate clearly that this is a composition that exists of four musical 'essays', the word 'essay' here refers to the French word for 'try' – the title can therefore be loosely translated as 'Four Attempts' (Taljaard, 2020).⁶ The four movements can be performed together as a single work or any individual movement can be performed as a freestanding composition (Martens 2017, 137). Martens (2017, 137) wrote the following about this composition: 'This is a complicated, extremely detailed score with precise indications for each player. The score demands four players of exceptionally high standard, not only to execute individual parts, but also to master the Four Essays as a quartet.'

Taljaard often uses this work as an example when he delivers guest lectures locally and abroad. The full score of *Four Essays* is available from the composer directly.⁷ The original recording is held in the Music Library at the School of Music and Conservatory of the North-West University, Potchefstroom Campus.

2. Inspirations and Influences

At the time of this composition (2001-2005), Taljaard was inspired and influenced by aspects of his training in music and languages, personal experiences, and scholarships that were current and popular at the time. I distinguish between inspiration and influence, and I see the two concepts as follows: 'inspiration' refers to aspects that directly exerted a conscious mental stimulation on Taljaard in composing *Four Essays*, whereas 'influence'

refers to subconscious aspects that became an integral part of Taljaard's compositional process. I acknowledge, however, that the two concepts are closely interwoven and cannot be separated completely. The inspirations of *Four Essays* – i.e. Indian music, Bharatanatyam classical dance, musical gestures and French poetry – have played significant roles in the majority of Taljaard's works, and they have evolved to become influences in more recent works.

There were several specific inspirations and influences that led Taljaard to compose *Four Essays*, I discuss only the most notable ones below.

2.1. Metaphors in Music

Metaphors are used to create analogies and, from my discussions with Taljaard who often referred to the work of Lakoff and Johnson (2003)⁸, it became evident that he made several analogies through metaphoric reasoning to reinterpret the external sources of inspiration in his music. For example, he did not attempt to imitate authentic Indian music – that will be discussed below – or map the musical gestures as a source domain onto his own music as a target domain. Those sources merely served as *inspiration* for elements of the composition.

George Lakoff and Mark Johnson (2003, 3) assert that '[o]ur ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphoric in nature'. I start here with metaphors in music because the majority of influences as well as analytic findings that I describe below are fundamentally metaphoric, relating to movement in music as described by Johnson and Larson (2003).

One of the most basic metaphors in music is that music moves. Theorists of the Moving Music Metaphor claim that 'a musical event is conceptualized as an object that moves past the stationary hearer from the front to the back' (Larson 2012, 67) and therefore we experience music as an unfolding of tones in space that extend over time. We say, for example, that the flutes speed up now, the music goes slower here, and we are coming to the recapitulation. By saying that, we

refer to a particular point in time of the music. If we think about time, we conceptualise time by saying that it is flying or dragging. Thus, we understand temporal change as a particular kind of motion through space.

There are two main types of metaphors: conventional metaphors and unconventional (or new) metaphors. Conventional metaphors 'structure the ordinary conceptual system of our culture, which is reflected in our everyday language' and unconventional metaphors 'are imaginative and creative [...] capable of giving us a new understanding of our experience' (Lakoff and Johnson 2003, 139).

In music, typical conventional metaphors would be:

- The leading tone resolves to the tonic;
- You swing the notes for a jazzy feel;
- That leap is difficult to do on a flute;
- The sharp raises the tone.

Some less conventional metaphors were explored by Steve Larson (2012, 75) in his work on music forces. Through these metaphors, Larson argued that

- you can be pushed by music,
- you can be pulled by music, and
- you can be moved by music.

These metaphoric understandings of movement in music will be discussed further in §2.4 on Musical Forces. I will not venture into details about metaphors in music here, but it will benefit readers to know that the influences described below are mostly metaphoric or reinterpreted analogies to music – I discuss topics that are central to metaphors in more detail below when I present the analysis.

2.2. Indian Music and Bharatanatyam

Many Western composers were influenced and inspired

by Indian music, as can be seen in the work of Philip Glass and Wim Henderickx, for example. Taljaard was exposed to some live Indian music and he was inspired by specifically South Indian music when he attended a Bharatanatyam performance at the Potchefstroom City Hall (Taljaard 2020).

Bharatanatyam is a major form of South Indian classical dance that originated in the state of Tamil Nadu. It entails body poses (*karanas*) and hand gestures (*mudras*) to convey a narrative (O'Shea 2003, 176). This dance tradition of devadasi⁹ was first known under different names¹⁰ until the term Bharatanatyam was used for the first time around 1935-1940 (Jeevanandam 2016, 736). The word Bharatanatyam was probably derived from a combination of words: *bhāva* (emotion), *ra* from *rāga* (melody), *ta* from *tala* (rhythm) and *natya* (dance).¹¹ Bharatanatyam performances originally took place exclusively in Hindu temples and they were completely banned in 1910 due to the launch of anti-dance movements by Christian missionaries as well as a directive of the Madras Presidency under the British colonial government. The success of the work by lawyer E. Krishna Iyer and theosophist and Bharatanatyam choreographer Rukmini Devi Arundale to prevent the Bharatanatyam from dying out resulted in a revival of the Bharatanatyam. Subsequently, the Bharatanatyam became a dance tradition that is now performed inside and outside Hindu temples (Khanna 2018, 50-51).

A traditional Bharatanatyam performance follows a *margam* – a seven-part order in which performances take place: 1) Alarippu, starting with rhythm only in order to draw in the audience; 2) Jatiswaram, the addition of melody to the alarippu; 3) Shabdam, the addition of lyrics; 4) Varnam, complex hand and body movements are used to tell a story; 5) Padam, moving to reverence and simplicity; 6) Thillana, the climax; and 7) Shlokam or Mangalam, calling for blessings (Balasaraswati 1976, 3-4; Albright and Gere 2003, 143).

Due to the fact that this dance can now be performed outside of Hindu temples, Taljaard had

the opportunity to attend such a Bharatanatyam performance. He was fascinated by the complex gestures of the Bharatanatyam dancer and he wanted to achieve a similar narrative and well-formedness through gestures in music – this brought him on the track of the scholarship on musical gestures (Taljaard 2020).

2.3. Musical Gestures

Anthony Gritten and Elaine King (2006) compiled essays on musical gestures in their book *Music and Gesture*, following movements in musical scholarship that cumulated in the First International Conference on Music and Gesture in 2003 at the School of Music, University of East Anglia. Gritten and King (2006, xx) describe the vast topic of music and gesture as follows:

The study of human gesture is a vast, complex field of research that raises many issues about performance and perception. Different communities use, understand and explore gestures in different contexts, and so definitions of musical gesture vary across these communities, as do methodologies, both theoretical and practical, for understanding how musical gestures originate, what they mean and how they work. Across cultural, aesthetic and terminological differences, however, most scholarship on musical gesture makes a grounding assumption, broadly semiotic in nature: a gesture is a movement or change in state that becomes marked as significant by an agent. This is to say that for movement or sound to be(come) gesture, it must be taken intentionally by an interpreter, who may or may not be involved in the actual sound production of a performance, in such a manner as to donate it with the trappings of human significance.

As mentioned above, the study of musical gestures is

vast and complex, and I will not go beyond explanations that are necessary to understand this article.¹² Musical gestures are understood in different ways that range from a sound pattern to the actual movements made by performers. Although Taljaard was inspired by the *physical gestures* of the Bharatanatyam performer, for the development of his composition technique he made analogies to sound in order to create *sound gestures*. Although the two types of gestures are closely related, they often stand as antithetical fields of research to one another (see Gritten & King 2006, 2011). Robert Hatten (2006, 1) asserts that '[a] theory of musical gesture must begin with an understanding of human gesture prior to its manifestation in sophisticated musical work.'¹³ This is because there are shared characteristics between human gestures and a fundamental musicality: 'the capacity to perceive, and roughly reproduce, characteristic shapings of rhythm, timing, pitch contour and intensity' (Hatten 2006, 1). Musical gestures as sound phenomena are described effectively by Arnie Cox (2006, 57): "Gesture" seems to match best the level of which we grasp (comprehend) music most viscerally and intimately, and in this way it highlights a kind of musical knowing that is distinct from our more visual and quasi-objective conceptualizations.'

Steve Larson (2006, 61) writes about musical gestures as a conceptualisation of music in terms of physical motion and states that musical gestures are shaped by musical forces: 'Just as every physical gesture derives its character in part from the ways in which it moves with respect to physical forces, so every musical gesture derives its character in part from the ways in which it moves with respect to musical forces.' The work of Larson (2006, 61-74) is an amalgamation of musical gestures and his theory of musical forces. I explain the relevant aspects of the theory of musical forces below.

2.4. Musical Forces

This section includes, but is not limited to, the application of the theory of musical forces to musical gestures (Larson 2006, 61-74). A full account of

Larson's theory is presented in his book *Musical Forces: Motion, Metaphor, and Meaning in Music* (Larson 2012). This theory formed an analytical lens for this article and the relevant aspects of musical forces can be explained as follows.

According to the theory of musical forces, listeners hear all tones in a piece of music as either stable or unstable. Stability is defined as a comparative quality that listeners attribute to points in a musical passage, influenced by the pitches and their metrical placements. Unstable tones are heard as unstable, depending on the degree to which they lead us to auralise other (more stable) points, and the path that will take the unstable points to the stable points (Larson 2012, 100).

According to Larson, unstable tones are governed by three *metaphoric* forces: musical magnetism, musical gravity, and musical inertia. We experience the metaphoric musical forces of gravity, magnetism and inertia in a similar way to which we experience their physical counterparts. (Larson 2012, 73)

Musical gravity is defined as the tendency of an unstable tone to *descend* to a stable tone. Some tones may be heard as more stable than others and musical gravity will 'pull' tones down to the most stable platform (Larson 2012, 83).

Musical magnetism is defined as the tendency of an unstable tone to descend or ascend to the *closest* stable tone. This tendency becomes stronger as the unstable tone moves closer to the stable tone (Larson 2012, 88).

Musical inertia is defined as the tendency of a pattern to continue in the same fashion it is internally represented by listeners. The meaning of 'same' depends on the representation of that pattern in our musical memory (Larson 2012, 96).

Larson's theory has been expanded by several scholars such as Seth Monahan (2013), Oscar Peterson (2014), Matthew BaileyShea (2012), Adam Roy (2015), Heather Holmquest (2014), Emilie Marshall (2016) and Jamie Keeseker (2016) but an understanding

of these expansions is not vital to understanding my analysis as they deal with topics not relevant to the work presented here. Therefore, I omit some of the more comprehensive aspects of the expanded theory.

2.5. Set Theory

Although Set Theory and its application in composition is a ubiquitous topic among theorists and composers internationally, only a few music scholars are currently working with it and teaching it at tertiary levels in South Africa. Taljaard, however, studied Set Theory with Bertha Spies and his B.Mus. Honours degree dissertation dealt with Allen Forte's approach to Set Theory (see Taljaard 1994). He presented several guest lectures on Set Theory in Composition and also employed it in his own compositions, most notably in the piano *Setudes* (2003-current).

Although Taljaard did not rigorously apply Set Theory in *Four Essays*, it is evident from his sketchbooks that he started off by sketching the scale of the work as a set in order to explore the relationships between the tones, the interval vectors, permutations, inversions, complements and symmetries.

Analysing material through the lens of Set Theory is standard practice in Taljaard's sketching and compositions. Relevant instances are discussed in the text below.

2.6. French Poetry

Taljaard was awarded the degree BA Honours (*cum laude*) in French literature in 1993. His interest in and knowledge of French literature, specifically French poetry and prosody, had an influence on this work that goes well beyond the title.

2.7. Lullabies

The majority, if not all, of Taljaard's compositions that are currently on his work list are inspired by a lullaby or quote a lullaby. Taljaard cherishes his childhood

memories where his mother sang lullabies to him and his siblings (Taljaard 2020). Subsequently, he explored lullabies from all over the world and incorporated some of them in his compositions. For example, the second movement, *Intermezzo*, quotes a Paressi Indian lullaby from Brazil entitled *Little Son, Sleep in the Hammock*.¹⁴

Although there is not a direct influence of a lullaby in *Serioso* that I am aware of, we cannot ignore the importance of lullabies on this work and the probability that they had an influence on Taljaard's thought processes during the composition of all four the movements.

3. Analysis of *Serioso*

3.1. The Larger Structure

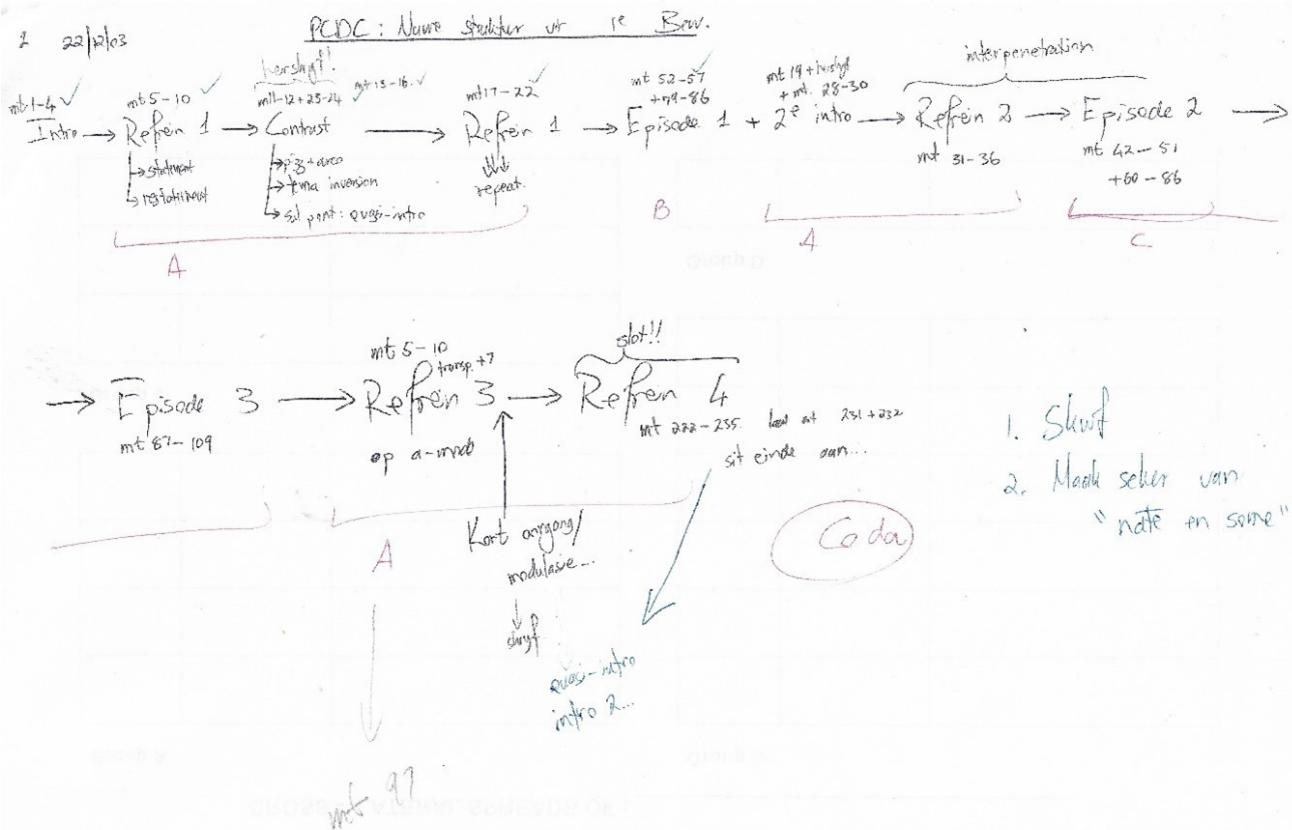
The working title of the first movement in Taljaard's sketches was *Sonata*, and this led me to Charles Rosen's *Sonata Forms* (1988) – a book that Taljaard rarely omits when talking about sonata forms. Through my studies of the sketches, it became clear that Taljaard employed the structure of a sonata rondo as a starting point for the larger structure of this movement – see Example 1 below. Rosen writes the following about the sonata rondo form: 'Technically a sonata rondo is merely a first-movement form in which the theme is completely restated between second group and development section and yet again at the end'. The example he provides for the larger structure of the sonata rondo is as follows (Rosen 1988, 124):

A	B	A	C	A	B	A
I	V	I	Dev.	I	I	I

The form above was adapted since the Classical period to accommodate the material and demands of composers from the Romantic period onwards. Mozart, for example, did not consider the sonata rondo to be a fixed form (Rosen 1988, 127) and adapted the form

significantly in his *Sinfonia Concertante* for violin and viola, K. 364 (1779). The sonata rondo form was modified even further by Taljaard to suit the material with which he was working. Due to his modifications and unconventional material, the conventional terms such as 'refrain', 'episode', 'development', and eventually

'sonata' or 'rondo' did not conform to the structural forms described by Rosen. However, Rosen's more underrated terms such as 'statement', 'intensification' and 'resolution' remain relevant to Taljaard's adaptations. This is, of course, in line with Rosen's understanding of sonata forms.



Example 1: A sketch by Taljaard, showing his planning of the larger structure.

The macro-level structure of *Serioso* largely corresponds with the rehearsal marks provided by the composer:

Table 1: The larger structure of *Serioso*.

	Statements	Rehearsal marks	Bar numbers
Exposition	Protostatement		mm. 1-5 ¹
Statement 1			mm. 5-7
			mm. 8-9
	Intensification	A	mm. 10-20
	Statement 2	B	mm. 21-30 ²
	Intensification	C	mm. 30 ² -39
	Bridge	D	mm. 40-45 ³
Development	Development	E	mm. 45 ⁴ -50
		F	mm. 51-57
		G	mm. 58-64
		H	mm. 65-72
		I	mm. 73-79 ¹
		J	mm. 79-96
		K	mm. 97-107 ³
Recapitulation	Statement 3	L	mm. 107 ⁴ -122
		M	mm. 123-127
		N	mm. 128-139
		O	mm. 140-152
		P	mm. 153-163
	Statement 4	Q	mm. 164-173
		R	mm. 174-183
	Coda		mm. 184-187

I included the terms ‘exposition’, ‘development’ and ‘recapitulation’ in Table 1 to facilitate the relation of the larger structure to the conventional sonata form. However, the material in the larger sections does not fulfil its role in the ways it would in a sonata form. The majority of the conventional terms are to be

understood in terms of the conventional sonata form and do not illuminate the larger structure of *Serioso*. The first statement, for example, does not meet the description of a theme, therefore the term ‘statement’ is a suitable term that best describes the material. The recapitulation, as another example, is not a mere repeat

of the exposition – it is the segment in which we hear full statements of the protostatement again. Although it is reminiscent of the material found in the exposition, it is really a continuation of the larger development and intensification of the statements in the movement.

From the above, it becomes clear that sonata-rondo form did not meet all the requirements of Taljaard's structural ideas and more complex material. Rosen (1988, 297) writes that other, early composers also challenged the strictness of the sonata form and that they overcame these challenges by the addition of a coda among others:

The appearance of a coda always disturbs the binary symmetry of a sonata form. It establishes a different kind of balance. [...] One might say that the coda is a sign of dissatisfaction with the form, a declaration in each individual case that the symmetry is inadequate to the demands of the material, that the simple parallelism has become constraining.

Given the ways in which Taljaard adapted the sonata rondo form to suit the demands of his complex material, it is not surprising that he added a 'coda' at the end in order to disturb certain formal symmetries and those parallels that would have pointed listeners towards a

more conventional sonata rondo form.

One might even ask at this point if there is any value in making the comparison with the sonata rondo form, and if it is not more viable to work with a free form. However, this dichotomy between a conventional sonata rondo form and Taljaard's adaptation thereof is indicative of a process that is followed throughout this work in which Taljaard deceives the listeners and their possible expectations. Furthermore, the concepts proposed by Rosen are indeed central to an understanding of *Serioso*.

3.2. Scale of *Serioso*

All twelve the tones of the chromatic scale are used in *Serioso* which is constructed in terms of five separate nonatonic scales, each spanning a minor sixth interval. These nonatonic scales are shown below in Example 2, numbered 1 to 5. The composer uses enharmonic spellings of accidentals to indicate magnetic tendencies towards the stable tones. Given the instrumentation of this work, these enharmonic spellings have a significant influence on string players' performance because they are able to increase the tendencies of tones to resolve to the stable tone.¹⁵ The tendencies of unstable tones toward stable tones – an essential characteristic of the tonal material of *Serioso* – are indicated with arrows. I discuss the establishing of stable tones (D, A, G) in the next section.

The musical example consists of five staves, labeled 1 through 5, each representing a nonatonic scale. The music is in common time and uses a treble clef. The key signature is one sharp (F#). Each staff begins on a different note: Staff 1 on D, Staff 2 on E, Staff 3 on F, Staff 4 on G, and Staff 5 on A. The notes are represented by open circles (white circles with black dots) and filled circles (black circles with white dots). Horizontal arrows point from one note to another, indicating the direction of magnetic tendencies towards stable tones (D, A, G). For example, in Staff 1, arrows point from D to A and from A to G. In Staff 2, arrows point from E to D and from D to G. In Staff 3, arrows point from F to D and from D to G. In Staff 4, arrows point from G to D and from D to G. In Staff 5, arrows point from A to D and from D to G.

Example 2: The five nonatonic scales used in *Serioso*.

The composition starts with all four instruments in unison on D4 and the remainder of the pitches are introduced gradually and systematically, which is now discussed in more detail. I start with the first segment, the protostatement, of the composition and its gradual transformations.

3.3. Protostatement

The first four bars of *Serioso* might appear to be an introduction at first. However, when one analyses these four bars closely, their structural function becomes apparent: these are the four most important bars of the composition. These initial bars clearly represent

the alarippu, the first part of the Bharatanatyam which is a rhythmic invocation without melody. Taljaard introduces the rhythmic and structural framework of the entire movement in this segment; he refers to this segment as the ‘protostatement’ of the composition (Taljaard 2009). I find this an apt term because the concept of statement is more convincing than theme in the work. Therefore, I will continue to use the term protostatement.

Due to the importance of the protostatement, I analyse it exhaustively in terms of its different musical elements. The protostatement is shown in Example 3 below.

Mosso ($\text{♩} = 140\text{--}148$)

The musical score consists of four staves, each representing a different instrument. The first staff uses a treble clef, the second a bass clef, the third an alto clef, and the fourth a bass clef. The time signature varies between common time (4/4) and 3/4. The key signature changes throughout the piece. Measure 1 starts with a forte dynamic (ff) and includes a 'pizz.' instruction. Measure 2 begins with a dynamic 'sfz' and includes 'arco' and 'sul pont.' instructions. Measure 3 starts with 'ff' and includes 'arco' and 'sul pont.' instructions. Measure 4 starts with 'sfz' and includes 'mf' and 'arco sul pont.' instructions. Subsequent measures show further developments with various dynamics and performance techniques like tremolo and ordinary glissando.

Example 3: The protostatement of *Serioso* (Taljaard 2005, 1).

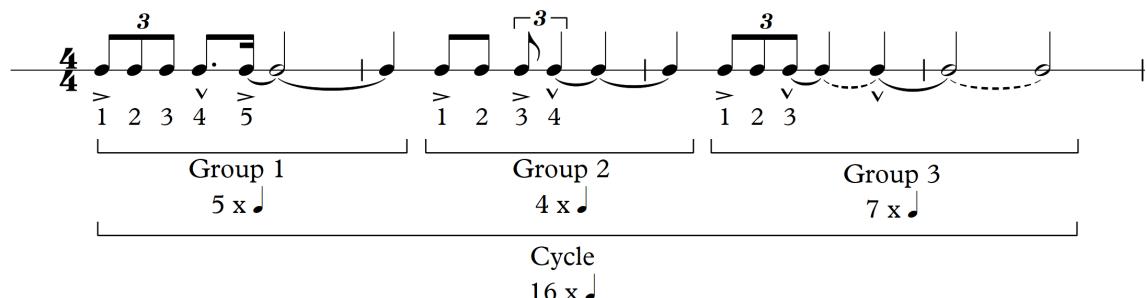
Due to the strong Indian influence on this work, one can draw a parallel between the Indian tāla and the rhythm of the protostatement. Roger Kamien (2004,

587) describes the rudiments of tāla and the following is related to the protostatement:

Rhythm is organized into cycles called talas. A tala consists of a repeated cycle of beats. Although beat cycles range from 3 to more than 100 beats in length, the most common cycles have 6 to 16 beats. A cycle is divided into groups of beats.

Rhythm in the protostatement is organised into a cycle of 16 beats. The cycle is divided into three groups: the

first group is 5 crotchet beats, the second group is 4 crotchet beats, and the third group is 7 crotchet beats. The third group of 7 is ambiguous and can therefore be seen as 2+5 crotchet beats or 2+3+2 crotchet beats. The ambiguities right at the start of the work are probably not to confuse listeners but to make provision for interesting transformations that I uncover in my analyses later on. In Example 4 below, I show the resultant rhythm of the attacks in the protostatement and the asymmetrical groups of the rhythmic cycle.



Example 4: The resultant rhythm of the protostatement of Serioso (adapted from Taljaard 2009, 1).

The **resultant rhythm**, shown above, does not exactly correspond with all the attacks we find in the various instrument parts because some attacks are in the foreground and some in the background. For example, the tremolo D in m. 1⁴ is not included in the first group of beats because it has a function of providing colour, rather than articulating a rhythmic pattern. The dotted ties in the third group are used to show the ambiguity of the attacks – there are two instances in the example above: 1) because of the snap pizzicato on the third crotchet beat of this group in the violoncello, listeners might perceive it as the start of a new group; 2) the tones in the sixth crotchet beat of this group appear to be a new attack but, because of the preceding tremolos followed by a softer sustained attack, can be heard as part of the tremolo material.

The resultant attacks are indicated with numbers below the notes. These numbers indicate to us that the number of attacks gradually decline as the cycle progresses.

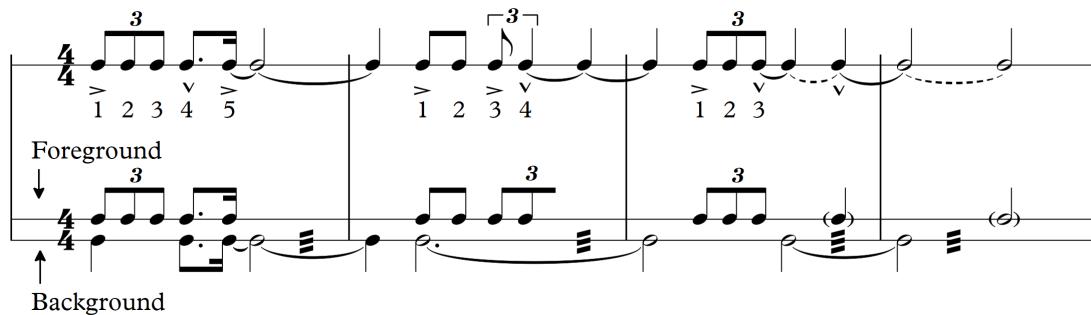
In order to explain the included beats of the resultant rhythm above, it is helpful to readers to refer to primary auditory stream formation, described by Albert Bregman and Jeffrey Campbell (1971, 244) as follows:

A stream may be defined as a sequence of auditory events whose elements are related perceptually to one another, the stream being segregated perceptually from other co-occurring auditory events. We assume that attention cannot be paid to more than one such stream at a time, i.e., that the apparent simultaneous streams produced by this process have the same properties as actual simultaneous streams set to separate ears.¹⁶

The protostatement can be divided into foreground and background **auditory streams** that will elucidate my representation of the resultant rhythm. I show

the two streams in Example 5 below. In this example, the resultant rhythm is shown on the top line and the auditory streams on the bottom two lines. For the

latter, the top line contains the foreground material and the bottom line the background material.



Example 5: Resultant rhythm and auditory streams in the protostatement of Serioso (adapted from Taljaard 2009, 1).

The **accents** in the protostatement, also shown in the example above, were influenced by French prosody (Taljaard 2020) where metric lines are determined by the number of syllables. Taljaard did not apply an existing syllable line, like the *alexandrin* for example, to his music and he also did not apply strict rules, like in the *musique mesurée à l'antique* (see Vignes 2009) of the sixteenth century. The French prosody influence was loosely interpreted as an analogy to rhythm and accents in order to create an idiomatic rhythmic process in the music. By doing this, the accents are not arbitrary and they come from natural speech inflections that will enable some listeners to relate to the protostatement from a musical-linguistic perspective. Each rhythmic group starts with an accent, followed by more accent and marcato indications. These accentuated beats draw attention to the resultant rhythmic attacks in each group.

The resultant rhythmic **attacks** gradually decrease from five attacks in the first group to three attacks in the third group, and the durations of the groups increase from five crotchet beats to seven crotchet beats in the third group.¹⁷ The resultant sustained tones at the end of each group increase as the resultant attacks in each group decrease, causing a decrease in activity in the

groups. Because the musical gestures are well-defined, they become aural segments with different starting and ending points. From a theoretical point of view, the starting and ending points of these well-defined gestures do not necessarily correspond with the metre.

The alternation between attacks and sustained tones has a deceptive effect on the listener in determining the **metre**. However, an understanding of the three groups as three musical gestures is more desired among listeners in this composition. When we only consider the written score, we see how the gestures extend over bar lines into the next metrically strong beat. However, from a listener's perspective, we hear three musical gestures that could each be a total of five, four and seven crotchet beats. Hence sound gestures are analysed in an aural way. When such emphasis is put on the perception of musical gestures, tempo plays a significant role.

The metronome marking indicates that this work can be performed at a **tempo** between 140 and 148 crotchet beats per minute, but the performance instructions by the composer indicate that '[t]he very fast tempo is an ideal' (Taljaard 2005). This instruction serves to support the grasping of the musical gestures by the listener (see the quotation of Cox on musical

gestures above). In order for a listener to grasp a musical gesture, that gesture should be within the limits of the listener's perceptual present. The perceptual present of listeners is argued to be 3-5 seconds (Snyder 2000, 5) or 5-6 seconds (London 2006, 128). A slower tempo will stretch some of the gestures beyond this limit.

From the perspective of rhythmic forces, listeners will experience a gravitational tendency of the sustained tones on weaker beats to the accentuated attacks on strong beats, regardless of the time signature. Although such gravitational and magnetic tendencies are present in each group, the composer avoids their fulfilment by starting groups on weaker natural beats but with added accents. This can be particularly challenging for listeners who are in search of a more conventional four or three-metre beat.

Even though the complex rhythmic content can easily be identified by listeners in restatements, they are perplexed by their perception of metric stability and the operation of rhythmic forces in the protostatement. Could it be that the composer used this perplexing rhythmic invocation to focus the attention of listeners on the **stable tone** that is repeated in the protostatement?

Although this segment has a strong focus on rhythm, it is not unpitched. The composer purposefully chose the pitch D4 for all four instruments in mm. 1-4² to establish pitch class 2 as a stable tone.¹⁸ Pitch class 2 is an interesting choice. It offers the composer various possibilities, including open strings on all four instruments and symmetrical lines when working at a piano (Taljaard occasionally composes at the piano.) For example, the disposition of the black and white keys on the piano are mirrored around D. Taljaard's employment of symmetry and mirrors in his compositions led me to believe that the latter was a factor when deciding on a tone. The notion of D as a stable pitch is reinforced by *ascending glissandi* in the four instruments (m. 4³), causing all subsequent tones to be heard as *above* D and subsequently instilling a gravitational pull towards D among listeners. This is

done when the composer introduces the new pitches Eb4, E \sharp 4 and F4 in m. 4³. These three pitches resolve to D4 and F \sharp 4 in m. 5^{1a} (see Example 6), complementing the chromatic set of pitches between D4 and F \sharp 4. With D4 established as the most stable and lowest tone, they will all be governed by gravity to descend to it.

Due to the fact that the protostatement serves an important structural role as a framework for the entire movement, I discussed the individual musical elements above. I now narrow my analytical scope for the remainder of this article in order to highlight the operation and transformation of significant elements only.

3.4. Statements of the Main Thematic Material

Serioso has five additional main statements, each with a secondary statement, of the main thematic material:

- Protostatement: mm. 1-4
- Statement 1: mm. 5-7
- Statement 1.1: mm. 8-9
- Statement 2: mm. 21-22
- Statement 2.1: mm. 23-24
- Statement 3: mm. 65-67
- Statement 3.1: mm. 68-73¹
- Statement 4: mm. 123-125
- Statement 4.1: mm. 126-127
- Statement 5 (coda): mm. 174-177

In the sections below I discuss how the protostatement is transformed according to different elements in every statement, starting with stability.

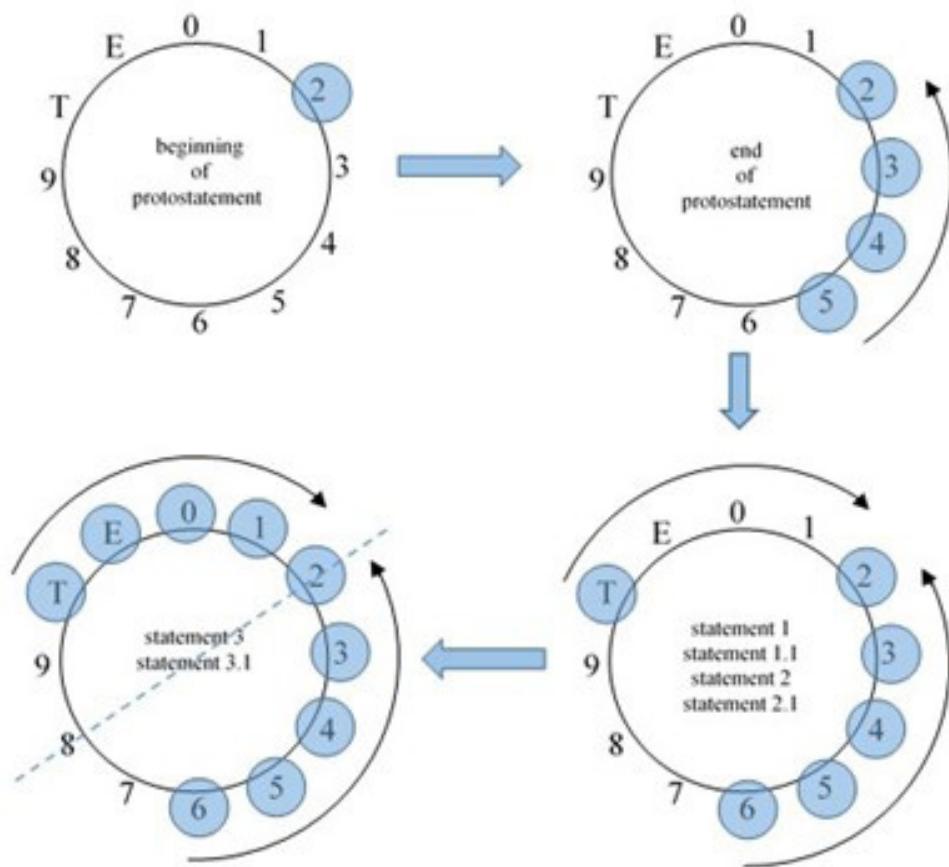
3.5. Stability in the Protostatement and Subsequent Statements

Example 6: Statement 1, mm. 5-7 (Taljaard 2005, 1).

Statement 1 introduces two pitches in addition to the pitches found in the protostatement: F \sharp 4 and B \flat 4. We may argue that a melody is developed here, like the Jatiswaram that adds melody to the Alarippu. The F \sharp s are heard on the first beat in all four instruments (m. 5¹) as a result of the glissandi in the protostatement. One can therefore argue that this is overlapping material between the protostatement and Statement 1. I see them as overlapping with Statement 1 and part of that statement. The occurrence of B \flat in m. 6¹, on the other hand, is separated from the material of the protostatement and its occurrence is rhythmically prepared. The B \flat is prepared with preceding rests in m. 5 in the 1st violin and violoncello, together with a thin texture in the 2nd violin and viola that is achieved by tremolo Ds that are indicated to be played *sul ponticello*. The appearance of B \flat in m. 6¹ establishes that tone as an unstable tone because no tones in close proximity, other than the D, are present to be perceived as stable. The B \flat s are also used a minor sixth interval above the surrounding Ds, sounding as an ‘outlier’

when compared with surrounding material that is centred around D. Although the B \flat can be perceived as an unstable tone that has the tendency to resolve to A, the dominant of D, that resolution is not heard until Statement 4. The inherent tendency of the B \flat is thus avoided to create tension and anticipation for the A – see Example 6 below.

Statement 3 and Statement 3.1 introduce new pitches to the statements: B, C, and C \sharp - these tones ‘guide’ the tendency of the B \flat to resolve to A away from the D in the opposite direction towards the D. Together with pitches D, D \sharp /E \flat , E \natural , F, F \sharp and B \flat , Statement 3 constitutes pitch-class set 9-1, which is the full pitch-class set used for statements. The transformation of pitch-class sets up to Statement 3.1 is shown in Example 7 below, using clock-faces to show the pitch class circles of Set Theory. Note the symmetry, indicated with a dashed line, at the last circle of the full pitch class set of the statements.



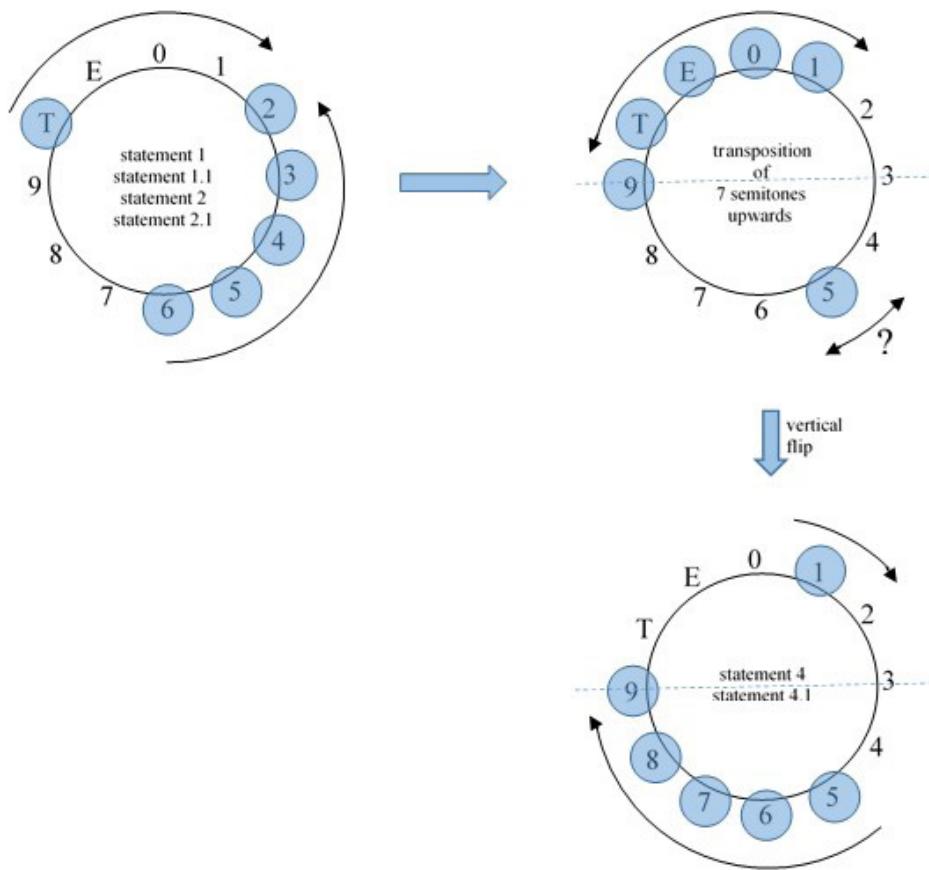
Example 7: Transformations of pitch-class sets up to Statement 3.1.

The D remains the most stable and prominent tone in the statements mentioned above, starting and ending each statement – all other tones are heard as unstable with the tendency to resolve to the D.

The pitch classes in Statements 4 and 4.1 are transpositions of the pitch classes of the other statements, three semitones higher. Although the transposition is only of a minor third, it creates the illusion of a dominant transposition because the A is established as the stable tone in these statements. This is another example where the composer applies conventional structures, i.e. moving to the dominant in sonata-rondo form, by means of unconventional approaches. Example 8 illustrates the pitch class set of the first two

statements (left) and the transposition of that pitch class set 7 semitones higher (right). The tendencies of tones, indicated at the right circle, are ambiguous with strong magnetic tendencies in B \flat -A, C \sharp -D, and F as the outlier. The transposition by Taljaard, 3 semitones higher, is shown at the bottom right and is a mirror of the 7 semitones transposition at the top right. Taljaard's transposition contains more goal-directed tones: F, F \sharp , G and G \sharp have tendencies to resolve to the stable A. The C \sharp as outlier has the tendency to resolve to D and is therefore ideal for maintaining tendencies to the D as the tonic – see Example 8.

Statement 5 has the same pitch classes as the first three statements, with D as the most stable tone.



Example 8: Transformations of pitch-class sets for Statement 4 and Statement 4.1.

A central feature we find in every gesture of the different statements is the centricity of the stable tone and strong magnetic tendencies of its semitone neighbours. This is supported by the limited, hexatonic and nonatonic, pitch classes of the statements. Let us take the two musical gestures in Statement 1 as an example – refer back to Example 6.

In both gestures (gesture 1: mm. 1; gesture 2: mm. 2-3¹) the ultimate goal, as well as the pitch concluding each gesture, is the stable D. Both gestures are centred around the pitch D4. The composer indicates the gravitational and magnetic tendencies of upper semitone neighbours of the stable tone, the E \flat , by differentiating between D \sharp and E \flat . The D \sharp is

reserved for upwards resolutions to the unstable E and the E \flat is for downwards resolutions to the stable D. Due to the ability of string players to alter intonation – and in terms of musical forces increase the magnetic tendency of tones to resolve – this differentiation between D \sharp and E \flat is not merely a matter of notation but also has performance and perceptual implications. In Statement 1.1, the stable D is heard as a dyad, together with D \sharp s and E \flat s, that enables the stable D to function as a pedal tone or a complex drone. I prefer to think of the D as a drone, as it relates to the Indian music influence, representing the stable tone played by a tampura.

This section discusses the stability and pitch content of the statements. However, the statements are also transformed in terms of register, rhythm, density and dissonance; I discuss these transformations in the sections that follow.

3.6. Expansion of Register in Statements

D is not only important as the most salient stable tone,

but also plays a central role in the expansion of register in the statements. I show the expansion of register of statements in Example 9 below. The dashed line is used to show the resultant continuous expansion of register from D4 to D6 and D2.¹⁹ The divergent expansion of the register relates to the composer's use of mirror relations and symmetry, expanding from one single D to two Ds that are each an octave apart.

Example 9: Register expansion in statements.

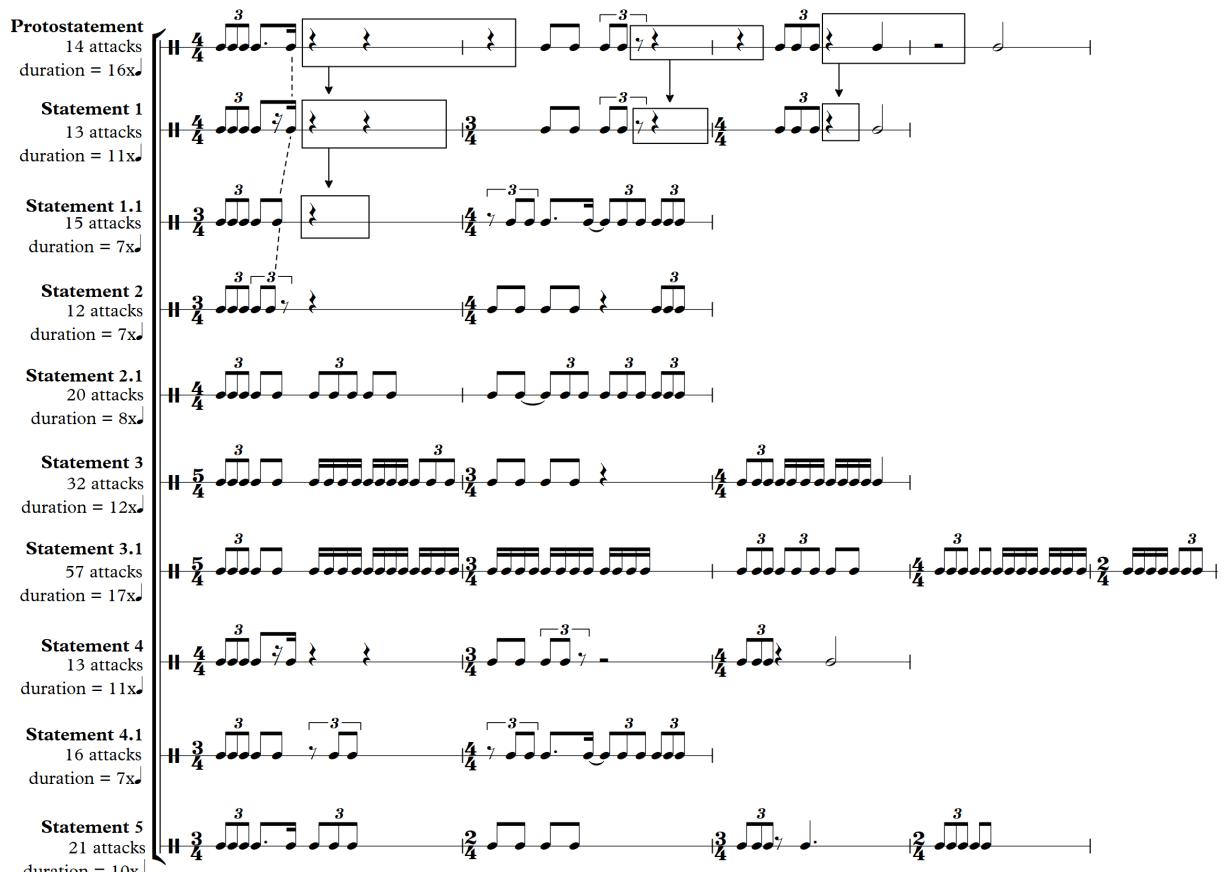
The material of the protostatement is limited to the pitch D4 in all four instruments. This pitch remains the only stable tone of the first statement until pitch D5 is introduced at the end of Statement 1 and pitch D3 in Statement 1.1. Taljaard purposefully expanded the register to the Ds in the next octaves to emphasise D as a stable tone in different octaves. The two-octave expansion of register from D4 to D2 and D6 at the end supports the establishment of pitch class 2 (D) as the

most stable tone of the composition. The gravitational strength of D4 thus gets increased as lower stable Ds are introduced. While the register expands in each statement, with the Ds as points of stability in different registers, the scope for movement of musical gestures also expands. Let us compare the two gestures of the first violin in Statement 1 with the two gestures in Statement 1.1 as examples – see Example 10 below.

Example 10: Comparison of musical gestures in first two statements.

The first gesture in Statement 1 encompasses a major third interval while the first gesture in Statement 1.1 encompasses a major tenth (or compound major third). Similarly, the second gesture in Statement 1 encompasses a minor sixth, while the second gesture in Statement 1.1 encompasses a minor thirteenth (or compound minor sixth). The fact that a minor sixth interval is the inversion of a major third interval is another instance of Taljaard's use of symmetry and mirror relations in this work.

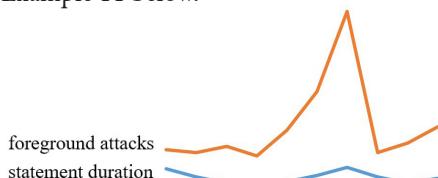
Although I had to include m. 178¹ in the segmentation of Statement 5, we could expect the last statement to venture into the highest and the lowest register, and at no other pitch class than D. This is because of the clear direction that the composer followed in his compositional technique of this work.



Example 12: Transformation of rhythm in statements.

3.7. Transformations of Rhythms in Statements

The transformation of gestures in statements also takes place in terms of rhythm and activity, measured according to the foreground attacks, in statements. The interaction between the length of statements (bottom) and foreground attacks (top) is shown graphically in Example 11 below.



Example 11: Interaction between the duration of statements (in crotchets) and number of foreground attacks.

It is clear from Example 11 that the activity in statements mostly increases, shown by the upward curve. A more detailed account of the foreground rhythmic transformations in statements is presented in Example 12.²⁰ The increase in activity is achieved by reducing the background material and increasing foreground attacks. In Example 12, I show the first transformation process in the example with boxes and arrows that show how background material (notated with rests to highlight the foreground attacks) is systematically reduced. The dashed lines in the first gestures show how the proximity of attacks transforms, placing attacks in a denser proximity to one another. Once the background material was completely phased out in Statement 2.1, semiquavers are introduced for the first time as foreground attacks in Statement 3. This leads to the peak of activity in Statement 3.1 with 57 attacks, 43 attacks more in a statement that is only one crotchet longer duration than the protostatement.

When we calculate the activity in each statement, the following algebraic equation can be used.

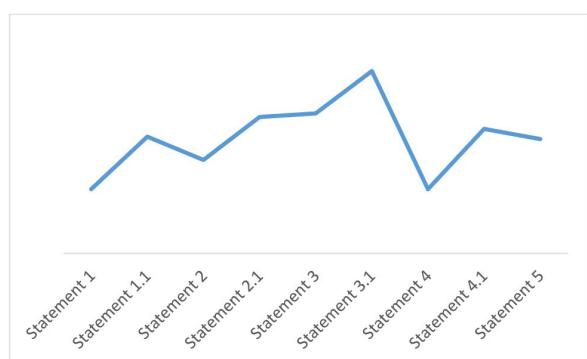
$$A = \frac{a}{d}$$

In this equation, activity (A) is calculated by dividing the number of attacks (a) by the duration (d) in crotchets. The activity of the statements is then as follows (range: 1.71-3.35):

- Statement 1: 1.18
- Statement 1.1: 2.14
- Statement 2: 1.71
- Statement 2.1: 2.50
- Statement 3: 2.67
- Statement 3.1: 3.35

- Statement 4: 1.18
- Statement 4.1: 2.29
- Statement 5: 2.10

The activity in the statements can be summarised graphically – see Example 13.



Example 13: Activity in statements.

As mentioned above, it is important to take note that we find the highest activity level in Statement 3 and Statement 3.1, as well as the most attacks and the longest durations in which musical gestures unfold.

3.8. Density and Dissonance in the Statements

In the protostatement and first statement, all attacks are at the unison. Statement 1.1 mostly contains octave intervals, with the addition of occasional (compound) major 3rd, minor 6th, minor 2nd, major 2nd, and major 7th intervals. The interval content becomes cluster-like, culminating in Statement 3 – see Example 14 below. In the labels of this example, the intervals are shown as semitones. The consonant intervals are followed by dissonant intervals, divided by slashes.

This musical score reduction shows two staves of music for two voices. The top staff is in 5/4 time and the bottom staff is in 2/4 time. Various intervals are labeled above the notes and chords, such as 3, 4, 7 / 1, 6, 8; 3, 4 / 1, 2, 3; 3, 4 / 1, 2; 12 / 1, 2; 4 / 2; 4 / -; 9 / -; 8 / -; 3 / -; 3, 4 / 1; 4 / 1, 8; 3, 4 / 1, 11; 7 / 1, 6, 8; 4 / -; - / 2; 12 / 1, 10; 12 / 1, 11; 7 / 1, 6, 8; 4 / 2; 3, 4 / 1, 2; 3 / -; and - / 1, 2.

Example 14: Reduction of Statement 3 showing the interval content.

Statement 4 contrasts with Statement 3 because it mainly consists of octave intervals. The effect of these consonant intervals is to shift the listener's attention back to the harmonic process and transformation of the

work. Statement 5, closely related to Statement 3 due to its complex interval content, represents the culmination of dissonance in the movement, but the effect is at times softened by wider spacing. See Example 15 below.

This musical score reduction shows two staves of music for two voices. The top staff is in 3/4 time and the bottom staff is in 2/4 time. Various intervals are labeled above the notes and chords, such as 3, 4, 7 / 6, 8, 13; 3, 4 / 1, 2, 3; 3, 4 / 1, 2; - / 2; -; 3; 3, 7, 8 / 1, 2, 4, 6, 9, 11; 7 / 2, 4, 6, 9, 11; 7, 8 / 1, 2, 4, 9; - / 1, 2; 3, 7, 8 / 1, 2, 4, 6, 9, 11; 7 / 2, 4, 9; - / 1, 2; 3, 4 / 1, 2, 3; 3, 4 / 1, 2; - / 1, 2; 3, 4, 7, 12 / 2, 3, 5, 8, 10, 12, 13; 3 / -; 4 / -; 9 / -; 8 / -; 3 / -; 3 / -; 4 / -; 3 / -; 8 / -; and - / 1, 2.

Example 15: Reduction of Statement 5 showing the interval content.

Although the dissonance and density often work in tandem with each other, Taljaard divided their transformational processes in the protostatements, causing them to culminate at different points. However, when we compare Statement 3 with Statement 5, we can argue that the closer proximity of tones in Statement 3

causes listeners to hear the dissonances to be stronger than in Statement 5 where some dissonances are removed by an octave or more.

3.9. Climax

At this point, the reader will have noticed that the discussions about transformation of the prototype mostly focussed on Statement 3 and Statement 3.1.

These two statements, shown in Example 16 below, can be considered as the first climax of this work. Due to the complexity and interaction of the musical gestures, we can consider this statement to represent the Varnam of the Bharatanatyam.

(Piu mosso $\text{J} = 132$)

ord. 3

mf sfz ord. 3

mf sfz ord.

mf sfz 3 ord. *mp* 3 *sfz mf*

mf sfz 3 *mp* 3 *sfz mf*

mf

mf

mf 3

mf 3

fff 3 *mf*

fff 3 *mf*

fff 3 *mf*

fff 3 *mf*

mp

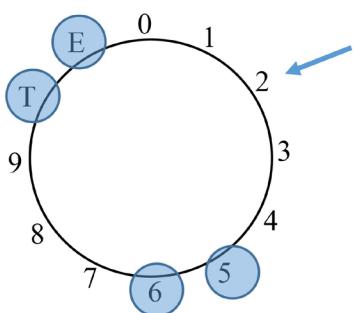
mp

mp

p 3

Example 16: Statement 3 and Statement 3.1 (Taljaard 2005, 8-9).

These statements were formed by combining two salient musical gestures. The one gesture uses pitches symmetrically around the stable D4 by means of neighbouring tones (e.g. Violin I and Viola, m. 65¹-65³) and the other employs pitch classes 5, 6, T and E symmetrically around the stable pitch class 2 (e.g. Violin I, m. 65⁴-65⁵). The collection of pitch classes 5, 6, T and E features prominently throughout this example. The latter can be represented clearer when the gesture is shown as a pitch-class set clock face – see Example 17. I do not distinguish between the ascending and descending gestures or their permutations, for example, but consider them to belong to one gesture derived from set 4-8.



Example 17: One of the musical gestures in Statement 3 and 3.1 as a pitch-set class

The two examples above show that the D (indicated with an arrow) is still the most stable tone towards which all other tones tend to move. Although the D is not omnipresent, it maintains its stable quality that is heard often and reminds one of a drone. The pitch class pairs E, 5 and T, 6 lie exactly the same distance in semitones from the stable 2 (respectively three and four semitones). The gravitational quality of the D as the most stable tone attracts these tones to resolve to D. Pitch class 8, lying at even closer proximity between the two pairs could have exerted a similar gravitational pull, but is avoided by the composer, probably to maintain emphasis on and attraction to the D.

The composer used various permutations of the

gestures, allowing him to combine different contours and subsequently creating an ambiguous contour for the segment. Because of the different contours, the operation of musical forces became more complex. Musical gravity is the dominant musical force for the violins with their descending gestures and musical magnetism is the dominant musical force for the viola and violoncello with their ascending gestures. In order for unstable tones to tend and resolve to the stable D, musical magnetism becomes more prevalent in two ways: 1) the descending B-F-gestures are combined with the E-Eb-D-gestures to strengthen the magnetic tendency towards the stable D; and 2) pitches C-C#-D are added to the ascending B-F-gestures to strengthen the magnetic tendency towards the stable D. The E, Eb, C, and C# complement the pathway to the stable D, which is reached unambiguously in m. 72^{2c} for the first time.

The descent in mm. 70-71 reminds one of Classical compositional techniques to brake the momentum that was built up in an ascent of semiquavers, followed by quaver triplets and then just quavers. In this case, Taljaard breaks the chain of semiquavers in m. 70: the operation of musical inertia causes us to expect the gestures we find in m. 65¹-65³ and m. 68¹-68³, but instead we hear how the momentum of the gesture is braked in m. 70.

In order not to lose momentum completely, we do hear some loud and energetic semiquaver gestures ascending and descending in mm. 71³-72¹. This material prepares the listener for the structural processes that will take place later after the final statement (mm. 180-187).

3.10. Preparation for the Final Statement

Statement 4 and 4.1 create some harmonic tension in preparation for Statement 5. The harmonic and pitch content of Statement 4, with A as the stable tone for the segment, is discussed above in §3.4. The material of this statement is unambiguous and the different instruments mostly play in mirror or an octave/two octaves apart.

The simplicity of this statement represents the Padam of the Bharatanatyam, where the cycle moves to reverence and simplicity. It is, however, not yet the end. The material in this statement follows the configuration of the material of Statement 1. The aim of the material in Statement 1 is to establish the D as the most stable

tone. However, when the material in Statement 4 follows that in an attempt to establish the A as the most stable tone, it actually juxtaposes the A in that context as an unstable tone in relation to the D. Therefore, this segment increases the gravitational pull back to D.

Statement 4 is shown in Example 18 below.

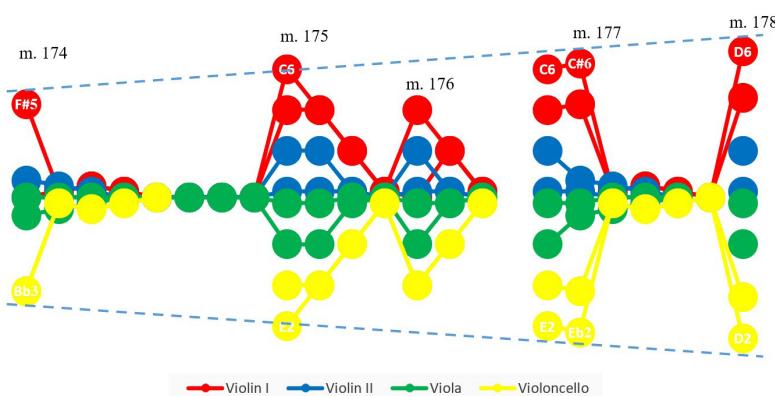
Musical score for Statement 4 (mm. 123-125) for Violin I, Violin II, Viola, and Violoncello. The score shows four staves. Violin I starts with *mf*, 3, and *ord.*. Violin II starts with *mp*. Viola starts with *mp* and *ord.*. Violoncello starts with *mf*, 3. The music consists of six measures. Measure 123: Violin I has eighth-note pairs with grace notes; Violin II has eighth-note pairs with grace notes; Viola has eighth-note pairs with grace notes; Violoncello has eighth-note pairs with grace notes. Measure 124: Violin I has eighth-note pairs with grace notes; Violin II has eighth-note pairs with grace notes; Viola has eighth-note pairs with grace notes; Violoncello has eighth-note pairs with grace notes. Measure 125: Violin I has eighth-note pairs with grace notes; Violin II has eighth-note pairs with grace notes; Viola has eighth-note pairs with grace notes; Violoncello has eighth-note pairs with grace notes. Measure 126: Violin I has eighth-note pairs with grace notes; Violin II has eighth-note pairs with grace notes; Viola has eighth-note pairs with grace notes; Violoncello has eighth-note pairs with grace notes. Measure 127: Violin I has eighth-note pairs with grace notes; Violin II has eighth-note pairs with grace notes; Viola has eighth-note pairs with grace notes; Violoncello has eighth-note pairs with grace notes. Measure 128: Violin I has eighth-note pairs with grace notes; Violin II has eighth-note pairs with grace notes; Viola has eighth-note pairs with grace notes; Violoncello has eighth-note pairs with grace notes.

Example 18: Statement 4 (mm. 123-125).

3.11. The Final Statement

Statement 5 flows into the coda of this work. In this statement, Taljaard employed two different contours:

closing contours on a meso-level (arrow-like shapes in Example 19) and an expanding contour on a macro-level (shown by the dashed lines in Example 19).



Example 19: Closing and expanding contours in Statement 5.

As in Statement 3 and 3.1 discussed above, Taljaard employed both musical gravity and musical magnetism in a collaborative way to satisfy the continuous tendency of the unstable tones and the less stable tones to descend and ascend to the most stable tone, D. Although surrounded with semitone neighbouring tones, the D is more present than in Statement 3 because this is the last segment in which the composer can establish the D as a stable tone.

The statement represents the Thillana of the Bharatanatyam cycle. In Bharatanatyam, the Thillana is considered the climax. I have already argued that Segment 3 can be considered as the climax of the movement due to the transformations of the different elements that culminate in that statement. However, there is some ambiguity in reaching a climax between Statement 3 and Statement 5. This is a complex matter of semantics and lies outside the scope of this article. Therefore, I will retain the term ‘climax’ for Statement 3 and describe Statement 5 as an ultimate ‘fulfilment’ of all the tensions and expectations created by the preceding material.

Leaps in m. 180¹ and m. 182¹ connect the

material in the outer higher and lower registers with D4 and its semitone neighbouring tones. The two segments in mm. 180-183 feature the operation of musical magnetism in the foreground. However, Taljaard makes it clear in mm. 184-186 that D4 – and no other D – is the desired stable tone when he has an unstable E♭5/E♭3 and an unstable C♯5/C♯3 in mm. 182³-183¹, and m. 184^{3b} in the first violin and violoncello that resolve to D4 in m. 185^{3b}. Although musical magnetism governs strong movements from the C♯s and E♭s to the closest Ds, Taljaard intervenes as an agent to compel resolutions to the stable D4 that is an octave removed from the expected D3.

Mm. 180-186 can be described as a condensing towards a single pitch, with the D as the prevalent ‘spine’. As part of this unravelling, Taljaard includes all twelve semitones in the coda in order to eliminate all tones, except the stable D. For the first time since the opening bars, the listener hears three unadulterated consecutive Ds in m. 187, performed at ***fff*** with downbows. This signals the eventual fulfilment of our expectation for all four instruments to resolve to the stable D simultaneously – see Example 20.

Example 20: Statement 5, mm. 180-187 (Taljaard 2005, 22).

Example 20, continued.

One could speculate on whether this eventual fulfilment of expectations represent the Mangalam of the Bharatanatyam. When we think about Indian music, it would often start with a drone and the material would develop ‘out of’ the drone (Harrison, n.d.). The material and the drone thus become separated to some extent. However, at the end, the material dissolves ‘into’ the drone again, signalling the end. That is what we hear when the unadulterated Ds are repeated in m. 187.

3.12. Intensifications

The intensifications, the segments that alternate with the statements,²¹ also follow transformational processes in which the D is established as the most stable tone. In the first intensification (mm. 10-20) the operation of

musical gravity and musical magnetism is presented in a simple and direct manner by means of short motifs. The operation of musical magnetism is intensified in each motif because each stable D is preceded by an unstable C♯ or Eb. In order to elucidate the direction-specific tendencies of these unstable tones, the resolutions of unstable tones to stable tones are performed glissando.

In mm. 13-20 the operation of musical magnetism is intensified by means of pedal point Ds. This sustained tone, that functions as a type of a drone, serves as a constant ‘reminder’ of the stable tone to listeners. The fact that the stable D is mostly surrounded with unstable C♯s and Eb accustom the listener to these tones through their salient role in the operation of musical gravity and musical magnetism (see Example 21).

Example 21: Mm. 10-15 of the first intensification (Taljaard 2005, 2).

Example 21, continued.

Although we hear the intensification segments as contrasting material to the statements, they also serve the role of developing material from the preceding statement.

If we compare the intensification segment above with another segment, we find that the D is

much more ‘eroded’ so that the operation of musical magnetism moves away from the D as a stable tone. Subsequently, the dominant (A) becomes the goal of the operation of musical magnetism, causing further gravitational tendencies of the A to resolve to the D – see Example 22 below.

Example 22: Intensification, mm. 58-59 (Taljaard 2005, 7).

The intensifications we find in mm. 128-173 (between Statement 4 and Statement 5) is a complex labyrinth, heading back to the D. In order to assist the listener with this complex harmonic process, the composer

added three ‘resting points’ of which one is a complete bar of silence. The material in mm. 164-173 recalls the first intensification (mm. 10-20) and prepares the listener for Statement 5 with the D as the stable tone.

3.13. Larger Structure Mirror

The discussions above all point toward two of the central features of this composition: mirroring and symmetry. In the same way that this movement starts with unison Ds, followed by the systematic introduction of additional tones, it ends with the latter being systematically eroded until only unison Ds remain behind. I compared this earlier with the structure of Indian music with a drone. From a Western perspective, this reminds one of Schenker's Ursatz. As Music Theory lecturer, teaching Schenkerian analysis, this theoretical framework might have had an influence on Taljaard's composition process here.

As discussed above, *Serioso* does not conform to the prescriptiveness of any theoretical or conceptual frameworks. Instead, they are used by Taljaard as inspiration for this work and therefore this work offers the possibility of extended scholarly debate from different analytical perspectives. In terms of mirroring and symmetry, the structure and operation of musical forces in this work is ambivalent. This ambivalence is purposefully exploited by the composer, leading the listener to ask questions such as the following: Is the real climax of this work the third statement, as discussed above, or is it the final statement?

These types of ambiguity were employed in all the musical elements of this work, resulting in what Taljaard calls cognitively rich music.

4. Conclusion

Serioso interacts in rich ways with the cognitive abilities of listeners through various layers of structures – it is certainly one of the quintessential works in the South African string quartet repertoire – and has wide implications for both the listener and the analyst.

For the listener, Taljaard provides Eastern and Western elements, woven into a seemingly simple structure, but one with complex ambiguities that will resonate with listeners of varying degrees of experience. Complex paths and processes are followed to achieve a

rather simple audible impression of tonality or pitch-centricity, a tonality supported by metric placements and drone-effects. One cannot necessarily hear the Eastern influences in this work, yet these influences contribute to the rich pitch structures, rhythmic structures, and musical gestures. As a composer of Western art music, it is clear that Taljaard did not want the music to sound particularly Eastern. *Four Essays* is an amalgamation of several conceptual ideas and inspirations that become the composer's constellation of sounds, recreated within a structure that challenges our powers of interpretation. This work also presents pitfalls for analysts, and Taljaard seems to be well aware of these pitfalls as one can deduce from some of his own words in the interview published as part of this node.

Analysts can work with *Serioso* on different levels and through different analytical lenses (as demonstrated in part in this article), ranging from concrete observations to abstract interpretations. Taljaard's meticulous transformations of different elements enable analysts to conduct a full inquiry into only the rhythm, for example. His use of stable tones, acting as an agent to manipulate the operation of musical forces upon unstable tones, and compositional techniques to expand and intensify musical gestures can, for example, be employed effectively in discussing and teaching Music Analysis and Composition. Although this composition might appear to be a so-called 'reversed-analysis composition', it becomes clear from Taljaard's sketches and from the view presented in this article that he puts the listener above the analyst; the clear structure and direction is the result of meticulous planning, and the craftsmanship and skill of the composer.

The exigent demands that the music poses to performers is reflected in the detailed score and it is clear that Taljaard was very aware of the possibilities and limitations of the instruments. An ad-hoc ensemble would probably find it challenging to present a plausible performance of this work: the string quartet is employed by Taljaard as a 'single instrument' of which the different components are closely knitted noted by Martens (2017,

137). Although the possibility existed that this work would not be performed due to its technical demands, Taljaard was not willing to compromise his sound ideas in order to increase the possibility of a performance. This admirable determination to achieve a very particular result, and working closely with the performers, is an important part of his approach to composition.

The laborious processes of writing music that Taljaard refers to as cognitively rich music, are evident in the rich, complex Gestalt of this work. Gestural movement is central to this work, not only in the shaping of sound in time but also to the movement evoked in those who interact with the music. It is also clear that he is intrigued with symmetry and mirroring in different ways: register expansions, pitch-class sets and gestures. This hints at a notion of self-reflection that we find in Taljaard's music. As evidenced in the interview included in this node, Taljaard's compositional process follows a very personal approach that does not only shape his music, but also his life as composer.

As with many creative individuals, their lives and their creative outputs are mutually shaped. In Taljaard's case, his creative outputs are reflective of his lived experiences and approaches. His attendance of the Bharatanatyam performance and other personal experiences, some evident from his sketches, are reflected in the music of *Serioso*. These include his absolute precision when executing basic tasks and his complex understanding of life – similar to the precision with which he notated every note in the score. Therefore, the music becomes a representation of Taljaard's personal life. His fascination with gestures does not only manifest in his compositions, but also enables him to direct his work as composer and lecturer, and to study movement in order to spend more time expressing his gestural ideas and combining them with music.

I repeat a quotation from the interview, published in this node, in which Taljaard summarises the connectedness between his life and his music (Taljaard 2020): 'I always try to find *that* [well-formedness] in my composition when I write sound patterns: to find similar well-formedness or constraints or rules and

then work with that. So *that* remained a source of inspiration and joy for me, this idea of Bharatanatyam and similar dance traditions. So, it was almost a chance event, this Bharatanatyam dancer that was performing [in Potchefstroom]. And it had an immense influence on me. In a way interesting or intriguing to think how chance events can shape our creative lives'.

Endnotes

¹ There is no financial gain or personal relationship which may have inappropriately influenced me in writing this article. However, I have an advantage over other analysts due to my studies with Taljaard between 2007 and 2017. Taljaard was my undergraduate lecturer at the School of Music and Conservatory of the North-West University (NWU) in Potchefstroom for Music Theory and Composition. He was also the advisor of my postgraduate studies at the NWU. My observation and interest in his work as well as his thought processes benefitted me in analysing and explaining some phenomena in his compositions in detail. My approach to analysis was certainly influenced by Taljaard, although we often have different opinions. However, my analytical findings reported in this article was not influenced by Taljaard or his sketches and inputs. I took an objective approach in this analysis and some of the observations might be in direct conflict to those of Taljaard. Due to this past working relationship with Taljaard, I had access to all the sketches and different versions of *Four Essays* at the time of writing this article. These sketches and versions are not available to the general public.

² *Movement for String Quartet* (1998) is a movement from *Paracuartetodecuerda* (1997) that was presented as an independent composition.

³ The durations of the individual movements are as follow: *Serioso* c. 8'; *Intermezzo* c. 5'10", *Scherzo* c. 4'30", and *Lyrico* c. 8'.

⁴ The quartet was named after the English instrument builder, David Rubio and is comprised of members Dirk van de Velde (violin), Dirk van den Hauwe (violin), Marc Sonnaert (viola) and Peter Devos (violoncello) – the viola player at the time of the performances and recording was Esther van Strahlen.

⁵ A recording, *The Rubio String Quartet*, was made together with recordings of string quartets by Shostakovich, Devreese and Dvořák.

⁶ Taljaard is a linguaphile and particularly fond of French – I discuss this further in the next section.

⁷ His email address: hannestaljaard3@gmail.com

⁸ George Lakoff is a professor in the Department of Linguistics at the University of California, Berkeley. Mark Johnson is the Knight Professor of Liberal Arts and Sciences at the University of Oregon.

⁹ Davadasi means 'gift to god' or 'female servant of god' and refers to female dancers in Hindu temples, dedicated to the lifelong worship of

and service to a deity (Talwar, 2013).

¹⁰ These different names include *sadbir attam*, *dasi attam*, and *karnatakam* (Jeevanandam 2016, 736).

¹¹ The etymology of the term Bharatanatyam is discussed in broad detail in Jeevanandam (2016).

¹² I would refer readers who are interested in studies on musical gestures to Gritten and King (2006 and 2011).

¹³ Hatten (2006, 1) defines human gesture: 'I define human gesture rather inclusively as *any energetic shaping through time that may be interpreted as significant*. By significant, I mean that for some interpreter, a gesture will convey information with respect to affect, modality and/or communicative meaning.'

¹⁴ The original title is *Êna ná mòkôcê cémáká*.

¹⁵ A violinist can, for example, make an unstable F# slightly sharper through fingered intonation in order to increase its tendency to resolve to a stable G.

¹⁶ Bregman and Campbell (1971, 244) mention that Neisser (1967) has done extensive research on the assumption that we can only pay attention to one 'ear channel'.

¹⁷ There is a slight decrease to four crotchet beats from the first to the second group and then a large increase to seven crotchet beats from the second to the third group.

¹⁸ If a listener were to hear the protostatement, knowing about the influences of Indian music but not with a deep understanding of the Bharatanatyam, this segment could also be heard as the stable tone performed as a drone by a tānpura.

¹⁹ The segmentation of statement 5 is somewhat ambiguous and for the purposes of register expansion, I segmented it up to m. 178¹.

²⁰ Note that the rhythms presented in this example were reduced to foreground attacks only.

²¹ I compared the intensifications with episodes of the sonata rondo form in §3.1.

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Jaco Meyer graduated with a PhD in Music Theory and Analysis at the North-West University. He also holds an FTCL in Composition from the Trinity College of London and is currently studying towards a Master's Degree in Positive Psychology. As a composer, his compositions are largely influenced by his research on musical forces and his collaboration with visual artists. He is an Extraordinary Research Associate at the MASARA research niche of the North-West University.