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Back to the future: towards the revival of extemporisation in classical music performance

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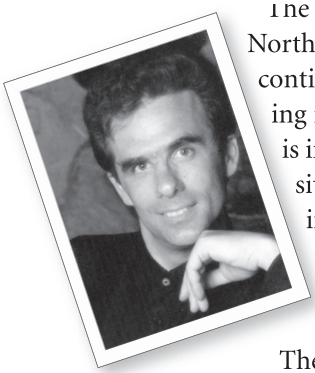
Introduction

Ask a classical musician to improvise and the likely response will range from 'What's wrong with the written score?' to 'I don't play jazz', reflecting a fairly typical attitude: one in which improvisation is held to have little or no connection with the performance of classical music – even that it is an inferior substitute for composition. Generally speaking, extemporisation plays little part in the contemporary European classical music scene.



One tradition of organ improvisation is one oasis within this landscape. In North America and in several European countries, including the UK, organists continue the tradition of extemporising during church services, as well as teaching improvisation. We owe this to the fact that, during the service, the organist is in live contact with the audience in the church, reacting to live and changing situations. Organists are expected not only to extemporise during the incoming and outgoing of the congregation, but also to reharmonise hymns and in some cases develop variations and fantasies. Olivier Messiaen's improvisations during the Sunday services in the Paris TrinitÈ church attracted audiences from far and wide.

The pianist Robert Levin is another exceptional example of a contemporary performer who extemporises cadenzas, repeats and fantasies on themes provided by the audience in his concerts. Another is the pianist Uri Caine, who fuses the spirit of jazz solo and group improvisations into the performance of classical repertoire such as Bach's *Goldberg Variations* BWV988 and Beethoven's *Diabelli Variations* op. 120.

It would appear that, among researchers and music educators, there has been a renewed and growing interest in improvisation since the early 1990s. This has brought new insights both to the definition of this art as well as to questions of the role it plays within the context of classical music performance.

The usual strategy in defining musical improvisation is to make a distinction between a spontaneously created performance on the one hand and a re-produced portrayal of a written

score on the other. However, I make no such absolute distinction here because I consider that all musical performance involves elements of creativity and spontaneity in varying degrees. The main issue that I wish to examine, however, is the nature of musical spontaneity in real time – which, though it may be associated particularly with improvisation, is relevant to all musical performances. To support this I will employ some relevant research and observations from my work as improviser and teacher.

The first section of this chapter will attempt to examine the meaning of the term 'improvisation' itself as well as the way in which the concept has evolved, as reflected in various dictionary definitions. It will also investigate the function improvisation performs in daily life as well as in art.

The second section will examine some basic elements relating to spontaneity in improvisation, such as natural and learned schemes, emotional expression, real time, flow and structural concept. As a reference and to provide some food for thought, this part also includes some observations concerning the improvised practice of Arabic art music (in comparison with western music), and the relationship within that culture between improvisation, performance and daily life.

In the third section, I shall attempt to integrate theory with practice in the teaching and learning of improvisation, as well as outlining some applications for repertoire work based on the theoretical concepts set forth in the middle section. In addition I shall explore the contribution improvisation makes to the performance of a written score, as well as the communication created with an audience through improvising.

Unless otherwise indicated, throughout this chapter the term 'improvisation' is understood as referring to its use within western European classical music. However, parts of this study refer to the phenomenon of improvisation in general.

What is improvisation?

A definitive answer to this question is not easy, because it depends very much on whom one asks. For some, improvisation is the highest artistic phase of the performance. Bach was known to his contemporaries mainly as a virtuoso organist improviser and, according to Czerny (Sonneck 1927), Beethoven's concerts attracted larger audiences during the extemporised second parts. His improvisations were so fluent that some of his contemporaries considered them to be better than his compositions. In fact, forms such as preludes, fantasias, cadenzas, toccatas and to some extent variations were often home to extemporisations. We know that Chopin never played the same piece alike twice – both as far as the interpretation and the score are concerned – and taught his pupils along the same lines (Eigeldinger 1988). His improvisations were often considered the high point of his performances, as Liszt's improvisations were similarly described. Arabic and north Indian art music are extremely complex from the theoretical point of view, and yet the improvised parts of the performance are considered to be the most important, both for the audience and the musicians. For many centuries (until the twentieth century), this was also the case in European art-music.

For others:

> the term 'improvisation', in suggesting a failure to plan ahead or making do with whatever means are available, may have negative implications. (Nettl 2001)

Some dictionary definitions, in addition to revealing the complexity involved in defining improvisation, can also demonstrate the evolution of attitudes toward improvisation in the last generation. Many dictionaries simply indicate the meeting point between composing and performing in real time. In fact, this is suggested by the term extemporisation itself: *ex*: out, *tempo*: time.

In the *International Cyclopaedia of Music and Musicians* (10th edition, 1975: 1064), for example, we find the following definition: 'a performance on the spur of the moment, without preparation or notes.' *The Oxford Dictionary of Music* (Kennedy 1985: 348) reads: 'a performance according to the inventive whim of the moment, i e without a written or printed score, and not from memory'. While the 1983 edition of *The New Oxford Companion to Music* (Arnold 1983: 903) defines improvisation as 'musical performance which is created as it is played, without a notated score or detailed preparation; also, the technique of giving such performance', the 2002 edition of the same dictionary already points out the difficulty in making a simplistic distinction between improvised and non-improvised music (Latham 2002: 905 6).

If before the 1970s musicology tended to treat improvisation as a craft (in contrast to the 'art' of composition), there has been a change in attitude towards extemporisation in the last generation. *The New Grove Dictionary of Music and Musicians* (Sadie 1980) was among the first to adopt an expanded concept of improvisation, approaching it as 'the creation of a musical work, *or the final form of a musical work*, as it is being performed. It may involve the work's immediate composition by its performers, or the *elaboration or adjustment of an existing framework, or anything in between*' (vol. 9, p. 31; my italics). See also the 'Improvisation' entries in Arnold 1983; Kennedy 1985, 1994; Latham 2002; Randel 1986; Sadie and Tyrell 2001; Thompson 1936.

Similarly, *The New Harvard Dictionary of Music* (Randel 1986: 392) points out that 'the degree to which a musician departs from a written or memorised work and the extent to which performances differ from each other may also be considered a function of improvisation'. It is in the spirit of this expanded definition that the present chapter approaches extemporisation: the search for creativity in improvisation applies for every type of artistic performance.

Improvisation, real life and art

When it comes to the question of what extemporisation is, it is important to remember that we all improvise in our daily lives, *as a natural activity* in response to unexpected and changing situations. Extemporising, or spontaneity, is a universal human skill, applied in different degrees within different contexts. The art psychologist R.K. Sawyer recently coined the term 'everyday creativity' to describe the problem-solving mechanisms applied by human beings in daily life (Sawyer 1999). One aspect of everyday life that resembles music-making is vocal expression on the non-verbal level of speech; this is often referred to as intonation. Any conversation between people contains elements of extemporisation. The more frank the conversation, the more extem-

porised it is. The link between emotional expression in speech and music-making is one of the key elements in the approach to extemporisation that will be presented later.

In art, extemporisation is relevant mainly to areas that obey the flow of real time: music, movement and dramatic art. The highly organised system of art music creates the constraints in which free and spontaneous gestures can move and dynamic flow can take place. Although planning and spontaneity seem to contradict one another, their coexistence is a condition for any skilfully executed extemporisation.

The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning (Parncutt and McPherson 2002) is one of the most recent collections of research works on the subject. We will refer to three articles from this book: Friberg and Battel 2002; Juslin and Persson 2002; Kenny and Gellrich 2002. While the subjects of these three articles are presented as separate matters, the present chapter on improvisation attempts to look for a holistic view, fusing the three into one, as is common practice in some non-western music cultures such as Arabic or Indian music theory. This chapter approaches extemporisation as a simultaneous meeting point of several complementary elements *in real time*: planned structure (conscious and unconscious prelearned knowledge) and spontaneity (immediate creative application); natural, inborn schemes and learned schemes; as well as directionality in time and emotional communication. It is the intensity of the simultaneous occurrence of elements such as planning and spontaneity that makes extemporisation unique. The catalyst for making this meeting point in time become live music is flow, a condition for any extemporised creative activity.

Flow

The notion of flow, a key element of the approach I will describe, is crucial in the context of creativity in general and extemporisation in particular, because of music's 'real-time' nature. In any broader study on improvisation the state of flow should be examined more thoroughly than the scope of the present chapter allows.

Mihlayi Csikszentmihalyi, a social psychologist at the University of Chicago, is considered by many the architect of the notion of flow in creativity. He defines 'flow' as being a state of

> being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one, like playing jazz. Your whole being is involved, and you're using your skills to the utmost. (Csikszentmihalyi 1990: ??)

Csikszentmihalyi is not referring to a musical activity in particular, and the fact that he uses the words 'playing jazz' as a metaphor may hint to a process of association-generated extemporisation.

Csikszentmihalyi also characterises a state of flow as one in which people lose their sense of time, and enjoy a strong satisfaction and immediate feedback. Losing one's sense of time means,

in musical terms, moving away from physical (in other words objectively measured) time, and towards the subjective experience of musical time – a phenomenon to which we shall return in more detail below (see p. xx). Half a century before the appearance of Csikszentmihalyi's work, Susanne Langer without actually using the term 'flow' nevertheless described many of its properties as a condition for meaningful listening as well as music-making (Langer 1953; see p. xx).

Lori Custodero, a researcher on music education among pre-school children, found that flow is a major factor in the way young children relate to music. She added to the properties of flow the following elements, relevant to musical activity:

- a merging of action and awareness;
- high levels of concentration;
- a loss of self-consciousness;
- a sense of clear goals and reception of immediate feedback; and
- a sense of feeling highly challenged and highly capable. (Custodero 1999)

While it is largely agreed that emotional expression is a strong motivation for being involved in a musical activity, it seems to me that the same is true when it comes to a state of flow. Emotional expression is in fact related to flow, and what we call 'inspiration' in the context of performance is also linked to this particular state of being in real time.

Why improvise?

The presence of spontaneous flow, a universal element in human behaviour that lies at the heart of improvisation, is one answer to the question: why improvise? Encouraging and developing the ability to extemporise can help to achieve a state of flow together with the ability to make creative use of knowledge in real time. Another answer is that the level of listening and involvement in which musicians engage when extemporising is often much higher than is the case in other forms of musical activity (Kenny and Gellrich 2002; also reported in interviews with students and improvisers conducted by the present author). The sense of this higher level of involvement can later be applied to the performance of pre-composed music.

The experience of extemporisation includes the listener as well, who occupies the opposite end of what we might call the line of communication from the creator or performer (who are obviously not necessarily the same in pre-composed music). The relationship between extemporisers and listeners (depending upon cultural codes) plays an important role in the process. The element of risk-taking, present in any extemporised situation, is a strong stimulant to active listening, vital in order for a state of flow to exist and for an interactive chain of communication to work successfully. All the elements important in solo improvisation take on greatly increased importance in group improvisation: in such situations, the level of active listening between the musicians themselves, and between the musicians and their audience, becomes heightened. The flexibility and the especially high level of risk involved in chamber-group improvisation

also intensify the real-time dimension of the experience. When transferring these qualities to the performance of pre-composed chamber music, a sense of 'one-time experience' can be achieved.

Some theoretical building blocks

The following sections outline some of the components involved in extemporisation; in particular, that which various writers refer to as 'upper state' (Pressing 1998) a 'state of flow' or 'transcendence' (Kenny and Gellrich 2002) and 'forgetting of oneself, a state that many improvisers strive to attain' (Floyd 1995: 139). In contrast with organisation of the musical material itself, this aspect of extemporisation is more difficult to examine scientifically and, therefore, has been the subject of little research until relatively recently.

To date, the work of Kenny and Gellrich is the most recent comprehensive research on the cognitive aspects of musical improvisation (Kenny and Gellrich 2002). One of their basic cognitive models of extemporisation consists of two main factors: first, the knowledge base – the general 'store' of knowledge the extemporiser draws on for his or her performance, which is built up by learning, practice and experience; secondly, the referent, which is specific to a given performance, providing a formal 'point of departure' as well as a necessary limitation on the possibilities available to the extemporiser within a particular improvisation (see also Pressing 1988, 1998). It also helps listeners in placing their expectations within a familiar set of codes. As Kenny and Gellrich stress, the 'automation of knowledge bases' is vital to any quality extemporisation;indeed, the same is true for a convincing performance of a pre-composed work as well. This automation allows the unconscious to access material we will later refer to as learned schemes (as opposed to the natural schemes, which come into play within the domain of spontaneous gestures of expression).

In the following I shall attempt to examine components related to flow within the improvisatory process: To begin with, I will outline the learned and natural schemes; next I will address the role played by the natural schemes in the expression of emotion, leading to links between speech and music; I will then add the dimension of real time and gestures; the last component addressed will be structure and its role in extemporisation. I will then attempt to apply these to the teaching and learning of improvisation as well as some aspects of performance.

Learned and natural (universal) schemes

Schemes (Barlett 1932; also described as models, archtypes, prototypes and 'structural systems of knowledge) may be defined as *principles of organisation of the cognitive activity* in several areas. An understanding of the schemes and their impact is necessary because they provide the connection between spontaneous gestures in the abstract, non-referential domain of music on the one hand, and the concrete domain of daily life on the other. The schemes create patterns to which acts of perception correspond, shaping our expectations. These expectations are then realised or contradicted, generating emotions accordingly (Meyer 1956).

Learned musical schemes are specific to each culture and style, while natural, or universal, schemes are common to all human beings. By their nature, schemes are activated spontaneously: hence their relevance to extemporisation.

Learned schemes

These are the building blocks of musical knowledge occurring throughout the chain of musical communication: composer, performer and to some extent listener (listeners are often not consciously aware of their knowledge of stylistic and cultural musical conventions). Relying substantially on these elements, composers and performers (more consciously) and listeners (usually less so) organise the higher levels of the production and perception of the musical work. Extemporisers create and perform simultaneously. Most of the analytical research of western tonal music (as well as its music theory) refers to learned schemes. (It is interesting to note that in Arabic and Indian music, natural schemes are a part of the theory itself, as music is considered to be functional and attached to daily life events.)

What Kenny and Gellrich (2002) call the 'knowledge base' is, in fact, based on the corpus of these schemes. Once internalised, their use can then also be influenced by natural schemes (see p. xx), allowing 'structured freedom' to take place.

In addition to being dependent on specific cultures and stylistic codes – and unlike natural schemes – the learned schemes and their operations are intrinsic to music; they can also be measured in a precise way (intervals and scales in terms of pitch, rhythm in terms of time between events, loudness in decibels, and so forth). They are acquired, as the term suggests, by a process of learning the conventions and theories specific to each culture both *consciously* (through practice) and *unconsciously* (through continuous, passive exposure). It follows that learned schemes vary according to culture – for example, while western music is based on a system of 12 equal intervals of a semitone, in Arabic art music there are 24 equal intervals of a quartertone, and Indian music uses a system of 22 *uneven* intervals. Because improvisers are performing several tasks simultaneously, they will draw on the internalised learned schemes known to them from their own cultural background, and will therefore create spontaneously within their own unique musical language.

The natural (universal) schemes and their impact on spontaneous emotional expression

The natural schemes complement the learned schemes, while at the same time contrasting with them in several ways. They occur spontaneously, and support us in dealing with daily life events and shaping our response to them. They are not measurable in a precise way, and are independent of any specific cultural code. They are involved in the way we express emotions spontaneously, whether vocally (mainly through speech intonation), or through gestures of body language and facial expression (Scherer 1983; also Scherer, Kappas and Hess 1991) or musically – hence their importance in the process of extemporising.

There follow four main manifestations of the natural schemes, developed by Dalia Cohen

(Cohen 1983); all are unconsciously used by improvisers. These schemes operate on the level of primary musical parameters: pitch, intensity, timbre, density of change of events, and time-related elements such as tempo and rhythmic patterns.

1 Range of occurrence of the primary musical parameters

The optimum range of expectation follows an inverted U function. Moving outside this optimum range, in the direction of either 'more' or 'less', will result in emotional tension. For example: a very slow or very fast tempo, a very low or high pitch curve, or a slow or fast rate of change.

Sadness, for example, although expressed differently in different cultures, is almost always manifested in slower tempo, lower pitch and lower intensity than joy or even neutral speech (the same is true for body movement gestures). I present a more detailed account of emotional expression via natural schemes in 'Emotional expression, speech and extemporisation' on p. xx.

2 Curves of change of the primary musical parameters over time

We may identify six basic curves: ascending, descending, convex, concave, flat (unchanging) and zigzag (random, frequent change). Speech intonation 'behaves' according to these curves in our daily life within the domain of non-verbal vocal expression.

These curves can be used as a referent for improvisers to take as a departure point together with specific emotions:for example, improvising a melody expressing extrovert joy using a zigzag curve.

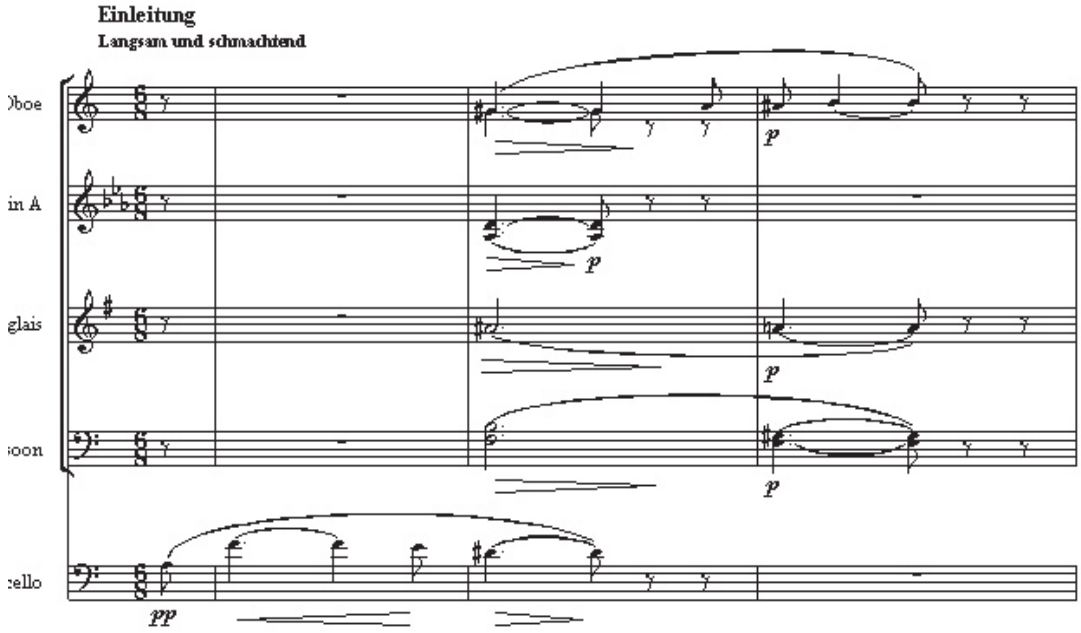
The parameter of pitch has received a generous amount of attention when it comes to research on these basic curves but, like the other natural schemes, they also govern the organisation of intensity (soft – loud – soft), density of change (few – many – few), and tempo (slow – fast – slow), for example.

The arch form (convex curve) is at the heart of the classical style's architecture, and is associated with stability because it follows a naturally predictable pattern of progression (low – high – low; slow – fast – slow; soft – loud – soft; calm – agitated – calm). The opposite, concave form is usually associated with instability because it contradicts a natural expectation. The arch form, as we shall see, is a basic shape to which students respond comfortably in improvisation exercises. It can also function as a tool for teaching the symmetrical aspect of the classical style through improvising.

A lack of change (flat line) will cause tension, as we all share a natural expectation of a certain moderated optimum amount of change. Likewise, a zigzag curve will also create tension, because of the impossibility of predicting the musical process's future, generating uncertainty.

3 Degree of definability

The degree of definition manifests itself in the clarity of categorisation of the different musical parameters (pitch, tempo and pulse, intensity and timbre, as well as intervals, chords, tonal stability and rhythms).



The degree of concurrence between the different curves of the musical parameters is of great importance. Non-concurrence generates tension caused by a lack of certainty regarding the continuation of the process. Concurrence, on the other hand, generates a sense of stability and calm because it helps to foresee the future development of a process. The opening bars of Wagner's *Tristan und Isolde* provide us with an example of this natural scheme. Here a non-concurrence takes place between the melodic and the intensity curves:
The ascending melodic line, or pitch curve, contrasts with the descending intensity curve as represented by the *diminuendo*. This generates an emotional tension typical of longing, a complex emotion containing both sadness and some form of hope (Cohen 1983; Fonagy and Magdics 1972). More on this subject will be encountered in the following section.

One may also point out that, stylistically, a greater degree of concurrence tends to be found within historical periods in which stability and equilibrium are stylistic ideals: the Renaissance and Classical styles contrast strikingly, in this respect, with the Baroque and Romantic periods, in which dramatic tension is prioritised and where, therefore, non-concurrence between different curves of musical parameter is common. This natural scheme – concurrence and non-concurrence between musical parameters – can profitably be used in the teaching of stylistic improvisation, as an additional non-intellectual and spontaneously available tool.

4 Natural operations

'Operations' are defined as repetitions with changes, within a framework of certain rules. Musical organisation includes repetitions and modifications of various kinds, and the tension between the two is an important factor in improvisation. These operations are cognitive in nature, and are commonly occurring phenomena in daily-life verbal and non-verbal communication. There are two examples of operations that are spontaneously applied (and therefore relevant to improvisation).

- Contrasts: simple contrasts are known to us all from speech intonation gestures: loud soft, high low, fast slow and so on. This operation plays an important part in shaping and decoding emotional messages.
- Use of equivalents: an essential operation to any authentic expression, as it contains both repetition and change. An exact, unchanged repetition (flat curve) generates tension, as suggested by the common term 'mechanical repetition'.

Awareness of these operations can help improvisers to avoid repeated formulas.

It is interesting to read Schenker's six components of good extemporisation in the light of the learned and the natural schemes. These are:

> [1.] a freely invented motif [2.] free and variegated rhythm [3.] harmonic tools offered by the tonal system [4.] the principle of combination [5.] chromatic change and alteration and [6.] free step progression, with its inherent peculiar psychology (Rink 1993: 3)

These principles are in fact a mixture of learned skills and natural operations. The third and the fifth of these belong to the learned schemes, while the *freely* invented motif, *free* and variegated rhythm, and *free* step progression, as well as the principle of combination, consist of natural operations on the learned schemes – operations used by us all in daily life.

Emotional expression, speech and extemporisation

A musician's ability to be expressive is one of the key factors in his or her ability to communicate, hence the importance of this aspect. It can be largely agreed that 'emotional experience is probably the main reason behind most people's engagement with music' (Juslin and Sloboda 2001:3 – this book, a collection of twenty research works (the first to address emotion and music since Leonard Meyer's 1956 classic) reflects a growing interest on the subject among researchers at the beginning of the twenty-first century).

It is the immediacy of emotional expression that makes it so strongly linked with the spontaneous aspect of music. The other obvious domain in which emotions are expressed spontaneously in daily life is speech (the Swiss linguist Ferdinande de Saussure, considered by many the founder of modern linguistics, draws a clear distinction between the linguistics of language and that of speech).

Like musical extemporisation, speech contains two main levels: the so-called 'what' level (the actual message expressed) and the 'how' level (the way it is expressed). The former, semantic level in speech will typically contain more 'planned' and pre-learned elements, while the latter is more spontaneous and extemporised. Significantly, where there is a conflict between what is said and the 'tone' in which it is said, listeners will more often than not instinctively follow the latter (Inbar 2003). As the French saying goes, *C'est le ton qui fait la musique* (it is the tone that makes the music); in other words, what one really means comes through the tone of one's speech.

1	**Emotion**	Cue utilisation
2	**Happiness**	fast tempo, small tempo variability, staccato articulation, large articulation variability, high sound level, bright timbre, fast tone attacks, small timing variations, increased durational contrasts between long and short notes, rising microintonation, small vibrato extent
3	**Sadness**	very slow tempo, legato articulation, small articulation variability, low sound level, dull timbre, large timing variations, reduced durational contrasts between long and short notes, slow tone attacks, flat or falling microintonation, slow vibrato, final ritardando, phrase decelerando
4	**Anger**	high sound level, sharp timbre, spectral noise, fast tempo, staccato articulation, abrupt tone attacks, increased durational contrasts between long and short notes, no ritardando, sudden accents, accents on tonally unstable notes, crescendo, phrase accelerando, large vibrato extent
5	**Tenderness**	slow tempo, slow tone attacks, low sound level, small sound-level variability, legato articulation, soft timbre, moderate timing variations, intense vibrato, reduced durational contrasts between long and short notes, final ritardando, accents on stable notes
6	**Fear**	staccato articulation, very low sound level, large sound-level variability, fast tempo, large tempo variability, very large timing variations, bright spectrum, fast, shallow, irregular vibrato, pauses between phrases, sudden syncopations

Table 4.1: Table of cue utilisation

The relevance of speech to musical improvisation derives from the strong parallels between them: both are 'created' and performed simultaneously in real time, and both carry emotions, gestures and motion. In both music and speech, what we have called the learned schemes are more dominant in shaping the 'what' level, while the 'how' level is governed mainly by the natural schemes (Cohen and Inbar 2002). The latter manifests itself in what linguists call intonation, or the prosodic level in speech. This is the natural 'music' of speech, consisting of an organising in time of primary musical parameters: pitch, duration, intensity and timbre. The presence of a naturally improvised musical dimension in speech is an important common element with musical extemporisation that can be used while learning and practising improvisation.

This link between speech and music is a subject that has fascinated philosophers, scholars

and musicians from antiquity to our time: Aristotle wrote about the orator's use of the voice to include modulations of intensity, timbre, register and rhythms (Aristotle 1947) – in other words to manipulate the musical aspect of his voice. Similarly, the expressive ideal of the Baroque style leans largely on means of emotional expression, inspired by Greek and Latin approaches to rhetoric and oratory. And Kenny and Gellrich commence their article with the statement, 'When improvisers talk about their music, they often draw upon linguistic metaphors grounded in communication or rhetoric' (Kenny and Gellrich, 2002: 117).

A universal element of emotional expression through the musical aspects of speech intonation is already suggested by Darwin's evolutionary theory: he argued that the natural rhythms and inflections of speech originated from previously evolved musical powers (Darwin 1872). Nils L. Wallin gives further evidence to the idea that the prosodic level of vocal expression represents an ancient stage of evolution out of which grew coded speech and music, which later became divided and developed separately (Wallin 1991; Wallin, Merer and Brown 2000).

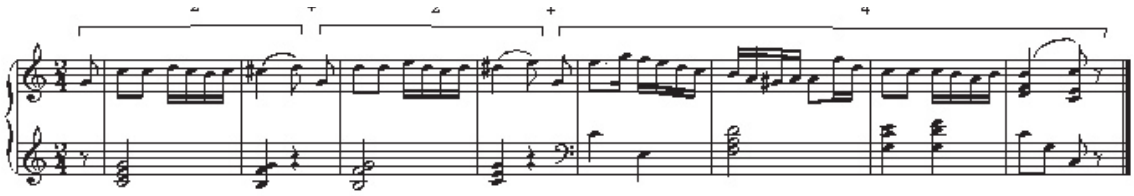
Several recent studies (Gabrielsson and Juslin 1996; Juslin 1997, 2000; Rapoport 1996), have found that changes in all musical parameters are involved when performers express emotions, and that such changes are instinctively understood by listeners who unconsciously decode what they hear. Table 4.1 shows Juslin and Persson's table of 'Cue utilisation in communication of emotions' (Juslin and Persson 2002: 223), which indicates findings that correspond with those of Fonagy, Imberty, Cohen, Scherer and the present author. This table presents a simplified description of emotions expressed via musical performance (a more detailed and precise set of definitions are available in Juslin 1999, as cited in Juslin 2001).

Similar patterns can be found among non-humans, a fact that strengthens the universal aspect of emotional expression through non-verbal vocal gestures (in addition to body language gestures (Scherer 1992)).

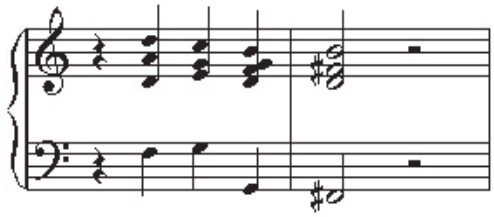
Note that – regarding happiness, anger and fear – two basic types of these emotions may be identified, namely extrovert and introvert. Juslin and Persson's table refers generally to the extrovert type only – a different picture will emerge with the introvert type. These cues may also be understood as a result of natural scheme operations: note the higher than average tempo, articulation, intensity, timbre and contrasts between short and long notes in extrovert emotions, which relate to the natural schemes mentioned earlier. The non-concurrence between, for instance, intensity and tempo in the case of fear, and lack of rhythmical changes, contrasting sudden accents and crescendo in the case of anger, all relate to the natural schemes – as well as the 'rules of excitement' outlined below. Regarding happiness, this is characterised by a raising of all the parameters; in the case of extrovert happiness, a zigzag curve in the pitch line tends to be discernible. The pitch curve corresponding to introvert happiness, by contrast, will be characterised by an arch form shape.

Juslin and Persson's table of cues receives a dynamic dimension in Dalia Cohen's approach to codifying the elements of emotional expression (Cohen and Inbar 2002: 141 2). She looks into this phenomenon as a process of change over time of the primary musical parameters, hence its relevance to musical improvisation. Her model of 'rules of excitement' is based on natural schemata. These are as follows.

1 Intensification in all the musical parameters. A natural ending for a unit in music or speech will tend to descend in pitch, density and intensity creating a sense of solution. An expression of excitement or question that requires a continuation will end with an ascent.
2 Sudden (as opposed to gradual) change in all parameters. (For example sudden change from slow to fast notes or syllables, or from large to small intervals.)
3 Deviation from an optimal normative range (represented by an inverted U function for various musical parameters). The deviation can take place towards the direction of either 'more' (higher pitch, stronger intensity, higher register) or 'less'. In the first case, emotions will be externalised, and in the second internalised.
4 Non-concurrence between the directions of progressions in various parameters. While normally increase in tempo will coincide with crescendo and slowing down is accompanied by diminuendo, a crescendo that occurs while slowing down will evoke tension as it feels less natural. (See Example 4.1.)



5 Uncertainty as to the continuation of a progression. Certainty can be the result of learned schemata such as directional harmonic patterns (I IV V I), or natural schemata such as 2n (2, 4, 8, and so on; in other words symmetrical motivic or phrase grouping arranged in 2+2, 4+4, and so on. See Example 4.2 below), or convex curve, or concurrence between the curves of musical parameters.



Example 4.2: Improvised by Halli Cauthery (December 2003), and reproduced with his permission.

6 Deviation from an expectation (the key element in Meyer 1956): for example, a cadence that ends with an unexpected resolution (as in Example 4.3, where the B-minor chord at the end contradicts the expectation for a final C-major chord).

Applications

It is possible, as Juslin and Persson propose, to teach emotional expression in order to 'provide performers with the tools they need to develop their own personal expression' (Juslin and

Persson 2002: 229). They suggest the use of the codified table of emotional expression as a teaching model, getting musicians to be aware of the acoustic cues characteristic of different emotions. My own experience in observing students improvising confirms that this approach – together with speaking and acting musical texts (extemporised or pre-composed) in different emotional contexts, and learning the dynamic rules of excitement – is effective in achieving a stronger sense of communication and fluency in improvisation (specific applications are detailed on pp. xx xx). Further, using emotional expression as the departure point for an extemporisation can be a useful way of unblocking the self-conscious worry of 'rights and wrongs'. The awareness of these elements is not meant to replace the genuine feel of an emotion but rather to help in realising emotions expressed musically.

Time, real time, objective versus subjective time, flow and gestures

Suppose we reverse Goethe's well-known aphorism, 'Architecture is frozen music': it might then be said that music consists of architectural shapes, which move in time during the music-making process. In Hanslick's words: 'Sound forms in motion' (quoted in Langer 1953: 107). But the way in which they move in time is, crucially, flexible: music is capable of shaping our experience of time perception in powerful ways. Musically experienced time does not necessarily correspond with physical time as objectively measured: depending on the circumstances, a musical experience may appear to accelerate the subjective feel of time flow, or to decelerate it – even, in some cases, to 'freeze' it. A skilled improviser can use this 'subjective' aspect of musical time as an expressive tool.

Alf Gabrielsson observes that, until relatively recently, most research work in the domain of music performance and psychology has tended to overlook this and the related aspect of music as *dynamic gesture*:

> Diagrams describing the hierarchical structure of a piece of music somehow resemble 'frozen', static music. There is another notion of music, not very much discussed in music theory or music psychology – the notion of music as gesture, motion, dynamic flow. There are undisputable close connections between music, motion and emotion. Some writers, e.g. the philosopher Susanne Langer, have suggested that there is an isomorphism between the structure and dynamics of emotions. (Gabrielsson 1990: 216)

Gabrielsson also points out that the words 'motion' and 'emotion' have the common Latin root *movere*. (The link between motion and emotion is also hinted at in such expressions as 'jump for joy', 'sink into depression' and 'freeze from fear'.)

The gesture is a natural and spontaneous manifestation of real-time flow, familiar to us all from daily life. Because both gestures and improvisation can take place only in real time, they are closely linked; gestures can, therefore, be a useful teaching and learning tool in improvisation – as well as in reaching a state of flow, as we shall see later in the chapter.

Susanne Langer approaches the issue from the perspective of contrasting types of listening; according to her, the analytical vertical type, in which one tries to recognise chords and judge key changes and intervals, misses the point of getting involved in the music-making process. Only when the listener *joins in* with the time experience of the performer, she argues, can a true experience be achieved. 'Musical duration is an image of what might be termed "lived" or "experienced" time – the passage of life that we feel as expectations become "now", and "now" turns into unalterable fact' (Langer 1953: 109). What Langer is describing is precisely a state of flow, or transcendence. Bruce Ellis Benson develops the idea in a similar way by looking into the experience of performing and listening as a creative, ever-changing process (Benson 2003). Active, open and flowing listening is a crucial skill in improvising – it forms part of an improvisatory attitude.

In the later section dealing with the teaching of improvisation, I will elaborate further on the application of real time and gesture to movement and group improvisation. In this context it is perhaps pertinent to recall Emile Jaques-Dalcroze (1865 1950), who, in Geneva at the beginning of the twentieth century, developed a method of combining movement and musical activity from early age onwards. This method emphasises meaning, emotional expression and structural coherence in music through integration with body movement – which is another domain of completely spontaneous, naturally improvised gestural expression (see Bachmann 1983 for further reading).

Structure and extemporisation

This section will examine structure as a phenomenon that can be felt intuitively as a dynamic and basic system of 'channels', or as a network in which the fully elaborated music flows. This approach can be applied both to improvisation and to the interpretation of repertoire.

As regards the intuitive aspect of structural perception, Michel Imberty (Imberty 2000) points out that there are certain common elements between Chomsky's generative grammar (Chomsky 1968), the Schenkerian approach to musical structure, and the Lerdhal Jackendoff generative theory of tonal music (Lerdahl and Jackendoff 1983). Imberty argues that there are significant grounds for supposing, based on gestalt theories and recent experiments testing Lerdahl Jackendoff's work – especially when it comes to rules of grouping structures – that basic forms originate inherently:

1. Forms are innate and their rules function from birth.
2. Forms are universal, independent of culture and milieu.
3. Forms are subject to a general principle of isomorphism such that rules of physical form, rules of physiological form, rules of psychological form, and rules of sociological form correspond with each other. (Imberty 2000: 450)

Later he continues:

> there are musical and linguistic universals that characterise human thought. They are expressed by basic rules that constitute a core grammar common to all languages and to all musical systems. (Imberty 2000: 450)

Here Imberty is, in fact, making use of the concept of natural schemes, and applying them at the 'what' as well as the 'how' (interpretation) level.

In the light of the above, it is interesting to read Heinrich Schenker's thoughts regarding the relationship between improvisation and structure. Schenker, who worked on the different levels of structure in tonal music, saw in improvisation an essential creative power of the great composers. Rink stresses Schenker's conception that great music 'grows outwards from within', as an elaboration of a 'basic plan' into which the details – the 'filling in', or the final choice of notes themselves – are added (Rink 1993: 2). Although Schenker's interest is focused mainly on composition, this approach can also be applied to the actual learning and practice of improvisation, as well as the encouragement of performing a repertoire piece in an improvised manner where appropriate. As an applied exercise tool in improvisation, this concept of starting from the basic plan is, essentially, the opposite process of analysing a musical phrase or section in the traditional manner: rather than proceeding from the foreground – the actual musical text – to the underlying structure, the process requires one to begin with a basic long-term structural gesture and improvise different foreground solutions that 'fill it in'.

Eric Clarke argues that the extemporiser's attention is constantly moving back and forth between the deep structural background level to middle or foreground levels according to the complexity of events (technically, harmonically, rhythmically, and so on) on the surface at a given moment (Clarke 1988: 1 26). This may explain the relationship between the different levels of the structure in the extemporiser's mind while the process takes place.

Friberg and Battel's (2002) study on structural communication is an up-to-date investigation of the impact, on the communication and perception of structure, of operations of timings, articulation, accents, intensity and so forth. Note that some of these operations are derived from the natural schemes, and are therefore spontaneous: for example, slowing down along with a diminuendo towards the end of a phrase or section, which will signal the structural shape of ending, following the scheme of concurrence between primary parameters. Although Friberg and Battel's study relates to the performance of repertoire, it has relevance to extemporised performances as well, and these operations can be included in the teaching and practice of improvisation.

In this context I would like to focus on another aspect of structural functioning relevant to improvisation: the ability to 'feel' a forthcoming event in advance. Instead of imagining notes and details in the inner ear, it is possible to encourage the ability to feel a whole phrase or even a section through musical gestures of tension and release. These gestures move freely between the basic structural events once they are defined. This approach has possible implications on repertoire work as well.

Kenny and Gellrich's model of mental processes during improvisation (Kenny and Gellrich

2002; 125) discusses the feedbacks that occur between short-, medium- and long-term recall and anticipation. The ability to anticipate in connection with recall comes within the domain of the natural schemes governing the learned schemes.

While improvising, a structural mental process takes place, partly conscious and partly unconscious. In addition to learned structural skills, natural schemes such as the arch (convex) form and 2n grouping (2, 4, 8, and so on) mentioned earlier provide us with two examples of naturally available structural skills. They may explain our ability to anticipate, once we hear four bars going from tonic to dominant, another group of four bars resolving this tension by returning to the tonic at a precise point in time. Naturally the equal-length answer is not always what actually takes place: in such cases, a sense of deviation from a natural expectation occurs, which can lead to other creative solutions (see also p. x: From models to applications).

Applications

1 Extemporising on given structures (see p. x).
2 Encouraging active listening by working on the ability to 'hear ahead', beyond the next note, towards a structural goalpoint.
3 Creating a 'safety belt' against the fear of wrong notes: when an accident occurs, provided the long-term structural goalpoint is clear, the inner ear knows in which direction to continue.
4 Looking for several possible reductions of repertoire works, performing these reductions and later improvising on them as one searches for an interpretation. A 'journey' takes place from the text downwards to the 'basic plan' and back to the original foreground while exploring different options. An important part of this work involves the juxtaposition of the actual text with its own reduction. (See p. xx for a more detailed account of these applications.)

Food for thought: a reference from the world of Arabic art music

In several non-European musical cultures (such as Arabic, Indian and Persian), improvisation plays a central role. As an example I will refer here to Arabic art music.

The world of Arabic art music, as well as research work on its performance and extemporisation practice (for example Nettl 1974; Touma 1971, 1976), is vast, and the scope of this chapter does not allow a thorough examination of it. This section outlines some points relevant to this study, which were collected in an interview with Taiseer Elias. Mr Elias is an eminent Ud and Arab violin player and influential teacher. He is head of the Arabic music department at the Jerusalem Music Academy. The interview took place in Jerusalem on 19 November 2003.

Some of the aesthetic differences between western and Arabic art music are obvious. For

example, vertical harmonic progressions do not exist as such in Arabic music; whereas, on the other hand, quarter-tones are used frequently and have a meaningful expressive role. In addition, the following quotations reveal a basic difference in *attitude* to art music between western and Arabic cultures. The fusion of improvisation and music performance forms part of the very close and interactive relationship between art music, audience and daily life.

When asked 'what is improvisation?', Taiseer Elias responded by saying that extemporising *is* music-making: 'Most Arabic art music is improvised. You cannot separate the fixed part from the extemporised part when you practise; nor when you teach and learn'. Therefore, unlike western music today, in Arabic art music it is impossible to treat music-making and improvisation as two different matters. While not all Arabic musicians are composers, they all improvise. For example, an Arabic musician will often begin a piece of music or try a new instrument with what, in western music, used to be meant by the term prelude: an introductory extemporisation, of any conceivable length. This improvisation will often lead directly into the main work without a break, taking into account feedback from the audience.

Emotional expression is built into the elementary material of Arabic music, the equivalent of our scales and modes – the *maqam*s, which have emotional connotations similar to those of the western modes up until well-tempered tuning was established.

> *Maqam*s are the modal framework of Arabic music, but they are much more than what modes mean in the western sense. By definition they contain emotional and behavioral meaning. They are grouped according to three categories: 1. optimistic, strong and merry; 2. sad and weeping; or 3. meditative. You never play the same *maqam* twice alike, and the actual application of the *maqam* must be extemporised. This is called *taqsim*. The extemporiser can change the emotional state by choosing a specific combination of *maqam*s but also by injecting a gesture of joy within a sad *maqam* or vice versa.

The following quotation can be interestingly compared with C.P.E. Bach's approach to the importance of expression in relation to technique:

> Emotional communication is one of the most important tests of the performer. It is also a central element in teaching, much more important than the theoretical aspects. Tears are not rare in lessons, and the urge for emotional openness is always present.

Apropos music and daily life, Taiseer Elias added:

> The naturalness of improvising in Arabic music is part of a social process. You hear these musical elements in every occasion of life; it is always extemporised and yet the criteria of good or bad are very clear.

The following quotation may suggest that the intuitive structural conception discussed on p. xx

is in action when it comes to Arabic musical extemporisations. In other words, natural schemes (instincts) are 'allowed' to mix actively with learned schemes.

> It is interesting, you know, that very good musicians – when they play a long and difficult passage – will often be unable to change just one detail or a few notes. They conceptualise it as one complete entity. As a general rule you do not teach structure separately as such.

Regarding communication with and the involvement of audience:

> Contact with the audience and its reaction is crucial. An audience familiar with the music participates in the process by reacting actively with vocal gestures. This may change the course of the concert and the extemporisations. When this contact with the audience is positive, the piece will last longer and the musician will take more risks while extemporising. In the opposite case, the extemporisations and the whole concert will be shorter.

The above can serve as a reminder of the status enjoyed by western art music in the past, and could be a source of inspiration for western performers and music educators.

From models to applications

Modelling improvisation

Models of improvisation tend to work on the relationship between three main factors: the knowledge base (comprising both the musical elements and instrumental mastery); the referent (representing a chosen constraint of the extemporisation); and the different manipulations and operations on the musical material. (Most of the models are based on jazz improvisations, for the simple reason that classical ones have been hardly available in recent years.) Johnson-Laird's model suggests that the more the knowledge base is internalised and mastered at a deep level of memory, the freer the improviser is to generate coherent extemporisations on the surface (Johnson-Laird 1991). Combining this idea with Schenker's concept of a basic plan governing from a deep structural level the actual improvisations on the surface may be the key towards understanding the generation of coherently shaped extemporisations. However, in order to realise the meaning of these structures in time, it seems to me that we need to take into account another factor – that of the short-term as well as the overall directionality, as a frame for the improvisation's narrative. The directionality gives the 'real-time' sense of dynamic connection between structural points, and participates in shaping the form of an improvised musical event within the time flow. Another factor that needs to be included in an integrated model of improvisation is emotional expression, capable of influencing the perception of time. An intensification of emotional expression, for example, will result in several possible effects, such as an acceleration or deceleration of tempo, sudden rhythmical changes, lack of regularity or

any combination of these. My own realisation of the links between coherent improvising and emotional expression has evolved from years of observing students practising improvisation, as well as actual experience.

In his model of improvisation, Simon Purcell adds a further basic component to those mentioned above: an element of attitude – 'motivation force to play, to create and express' (Purcell 2002). In fact, what Purcell is suggesting amounts to the introduction of an emotional state, as a 'driving factor in the learning process' (Purcell 2002: 7); this is also relevant to the actual improvising process.

Another important factor for a holistic model of improvisation is the influence of audience feedback (as well as the dynamics between the musicians improvising together), which may result in an emotional impact. The following quotation from Kenny and Gellrich's combined generative model of improvisation demonstrates the difficulty in establishing this impact.

> all improvisation perceived by listeners in *some way* feeds back into the overall process through audience feedback, which in turn affects the future creative decisions of group participants. (Kenny and Gellrich 2002: 123 (my emphasis))

Despite what we already know, more research is needed before we can integrate the mutual influences of emotional expression and sense of directionality in a more holistic model of improvisation. All of these elements – knowledge base, referent, the different operations, structural concept, directionality, emotional expression, flow, audience feedback and the dynamics between the improvising musicians – can contribute towards a fully integrated model of improvisation. It would appear to the present writer that we still lack this model.

The following two sections will attempt to apply some expression- and spontaneity-related factors to the teaching and practice of improvisation, based on the theoretical elements elaborated earlier as well as my own experience in teaching, practising, learning and observing students.

Teaching and learning to improvise

A common general belief is that the ability to improvise is a natural talent that cannot be taught: therefore, improvisation tends not to hold a place within the everyday musical activities of the classical music student. There are, of course, exceptions: organists are often taught to improvise, and one need hardly point out that it occupies a central role for the jazz musician (see Berliner 1994). But these examples merely serve to reinforce the 'specialist' reputation that improvisation seems to have within the classical music world. Unlike the field of the dramatic arts, dance and movement, very few music conservatoires in the West teach classical improvisation systematically. (The Guildhall School of Music & Drama in London and the Yehudi Menuhin School are among the few institutions where improvisation work (including classical improvisation) is introduced as a key component of the students' regular musical activities.) This is curious because, until the nineteenth century, improvisation was a central part of musical performance; in consequence, it was taught with almost the same degree of rigour as was, say, instrumental

technique (to list just a few examples: C.P.E. Bach's treatise on the free fantasia (Bach 1957), Czerny's *School of Extemporaneous Performance* Op. 200 and 300, which are sets of exercises on improvisation, and Chopin, who insisted that his pupils improvise new figurations in each performance when appropriate, following the bel canto tradition – see Eigeldinger 1988). Recently, however, little has been done in the field of western classical improvisation teaching methods (an exception is Alexander 1986).

Pressing (1988) outlines several categories related to the teaching of improvisation:

1 In western music until the Baroque era, there is little or no separation between composing, performing and improvising; there is only real-time music-making. (This is still the case in Arabic art music: see 'What is improvisation' on p.xx.) This is why no documentation exists regarding methods of improvisation before the Baroque era, beyond the idea of variations and ornaments.
2 From the Baroque era until the nineteenth century, models and procedures of improvisation are shaped according to different circumstances. The application of these models demanded – and still demands – a great amount of knowledge, which was one of the conditions of being able to extemporise. Indeed, this was one of the key factors separating the amateur from the professional musician (for example, figured bass, preludes, fantasies, cadenzas and so forth).
3 Teaching improvisation will involve the selection of improvisatory skills that are not related to any specific style: memory, reaction speed, technique, and so on.
4 It is necessary to have an approach that emphasises personal self-expression and creativity.

The last three of these categories are relevant to the teaching of improvisation in the field of classical music today.

Some of the difficulties in teaching and learning improvisation derive from the need to combine spontaneity with mastered knowledge and its planned use. A further common problem to be overcome is fear, originating from the contemporary culture of 'perfect performance', where wrong notes are not tolerated. This fear is often expressed by students, who use expressions such as: 'not knowing what to do', 'getting stuck', 'making a fool of myself', and 'losing control'. Classical musicians are usually trained to know exactly what, and how, they are supposed to play: this may explain why the idea of proceeding into the 'unknown' territory of improvisation might feel intimidating. The result can often be the exact opposite of the desired state of flow so essential to improvisation.

Kenny and Gellrich suggest an approach to the teaching and learning of improvisation which corresponds with the learning of a new language: first, like words and grammatical rules in language,

> Improvisers … need to … master the hardware of improvisation: patterns, parts of melo-

> dies, chord progressions … and melodic patterns. Only then can the software of improvisation be developed – systematic rules that assist with constructing melodies, phrases, and larger musical ideas, working with motifs, and establishing relationships among different parts of the improvisation. Both the hardware and the software of improvisation … must be practised systematically and separately. (Kenny and Gellrich 2002: 130)

Later, they argue: 'For improvisation to remain vital and truly spontaneous, it is important not only that the knowledge base is constantly updated and sophisticated but also that improvisers learn to transcend it' (Kenny and Gellrich 2002: 130).

The question is whether this separation between the deliberate practice of the knowledge base and transcendence is advisable at the beginning of the learning process. It is, after all, at this early stage that basic attitudes towards the spontaneous aspect of extemporisation are shaped, and if from the start the knowledge base is treated as a separate, intellectual process, it may then be difficult later on to integrate it with the 'transcendence' aspect. The consequence of this is that inhibition can be created as a pattern at the very beginning of the process, which prevents a state of flow. In sum, it would appear that Kenny and Gellrich advocate learning improvisation in the same way one would learn a *foreign* language by the text book: I would like to suggest an approach that treats improvisation as a 'mother tongue'.

Following my own experience of teaching and practising classical improvisation since 1990, as well as the applications generated from my research on spontaneity in improvisation (see p.xx), I propose an approach that differs somewhat in two respects:

1. One may reverse the order of events, so that, instead of treating the knowledge base as a separate issue, the sense of flow may be integrated from the very beginning of the learning process, together with the practice of structural, harmonic and stylistic elements, which need to be mastered and fully internalised. The idea is that the process will begin with *experience occurring before its intellectual understanding.* Instead of separating the learned schemes (practice of the knowledge base) from the natural schemes (natural gestures and flow), we can attempt to learn to improvise by fusing the two schemes. A link between the two sets of schemes may be supplied by including in this work an awareness of gesture and dynamic flow. In addition, an awareness of the emotional expression embodied in gestures can provide a further driving force.
2. A progression from this would be to go one step further and apply improvisational techniques to repertoire works (see p. xx).

There follow some elements of teaching improvisation that aim to combine the use of knowledge with creative flow.

Group work

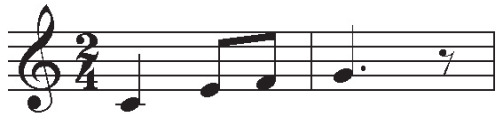
Working with groups of three to five musicians (ideally existing chamber-music groups) enables an atmosphere of exchange, associating musical dialogues with spontaneous real-life dialogues.

The group dynamic can help not only to instill confidence within the participants, as well as flow and active listening, but also to overcome fear. Encouraging a positive group dynamic is one of the crucial contributions of the teacher.

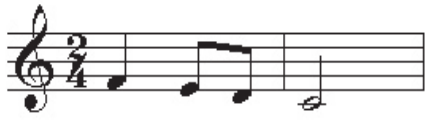
Informal, game-playing atmosphere, encouragement to take risks, sense of pleasure

In order to bypass analytical judgement and to get in touch with the natural schemes, an informal, game-playing atmosphere is crucial at the beginning of the process. The students are encouraged not to stop playing while an exercise takes place, and to abandon the notion of 'wrong notes'. The task is to turn 'wrong' notes into meaningful events while the extemporisation continues. The tasks are simple at first, growing more complex as the confidence of the student grows, and as far as his or her knowledge base allows. Awareness of pleasure while improvising is a working tool, indicating that a state of flow is present.

An example of a departure point is 'musical ping-pong': this consists of two players exchanging short gestures of half phrases (the first plays a short half-period phrase, proceeding from tonic to dominant, inviting another partner to answer back). The gestures are at first of the simplest possible nature, with a steady pulse in andante tempo (see Example 4.4).



In most cases the partner will respond with the same phrase length, returning from dominant to tonic, often employing similar motivic material, and following on from the last part of the opening half-phrase they have just heard (Example 4.5, for example).



Very often this kind of answer – or variants thereof – occurs without any conscious thought. However, this is not always the case. Even very fine musicians can experience a block at this early stage, feeling the opposite of flow. In such cases a possible solution can be found within the natural schemes: the use of gestures of motion. Thus a student can 'answer' the phrase with a physical gesture instead of the instrument, or by singing or speaking with whatever words or random syllables come spontaneously to mind. This simple example of a first step can demonstrate the links between the learned and the spontaneous. The phrase can be understood not only in terms of the conventional tonal approach but also in terms of natural operations: in fact, the 'ping-pong' example is a realisation of the natural scheme convex curve (arch form), which moves from stability to tension and back to resolution. Guided by operations of the natural schemes, we look not necessarily for

the tonic as such, but for a point of stability, after the first half-phrase leads us to an unstable point. In terms of structure, the ability to anticipate the 'future' of the phrase by projecting ahead the same pattern in the opposite direction – thus creating an arch form – is, as gestalt theory teaches us, a natural ability that most of us share. Making students aware of this natural ability leads the way towards developing structural sense while extemporising more complex tasks.

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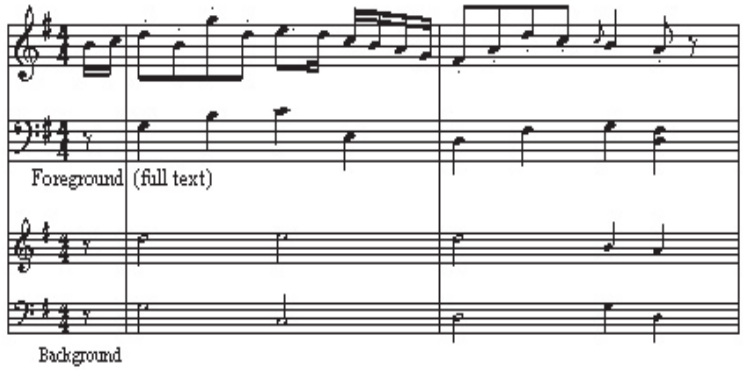
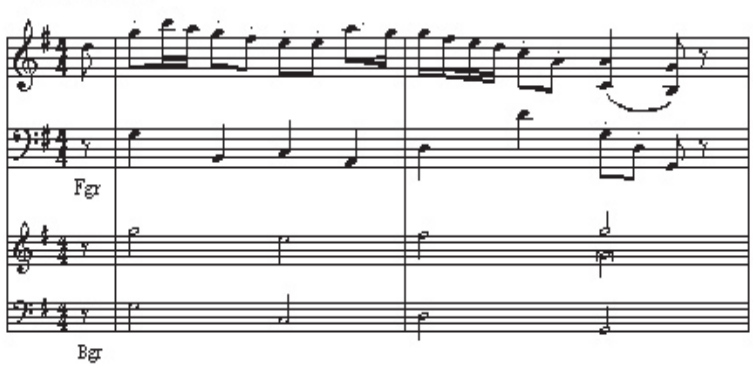
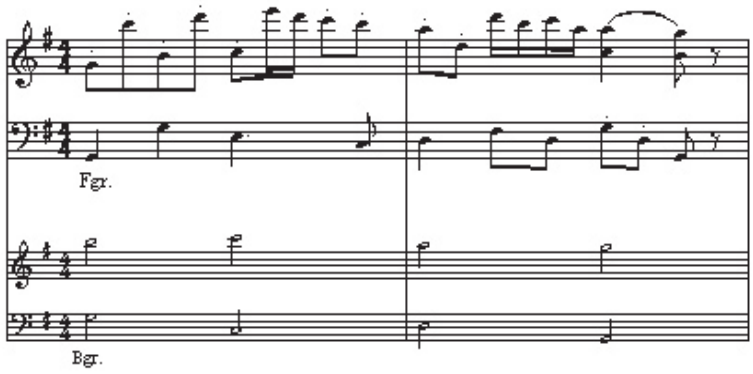


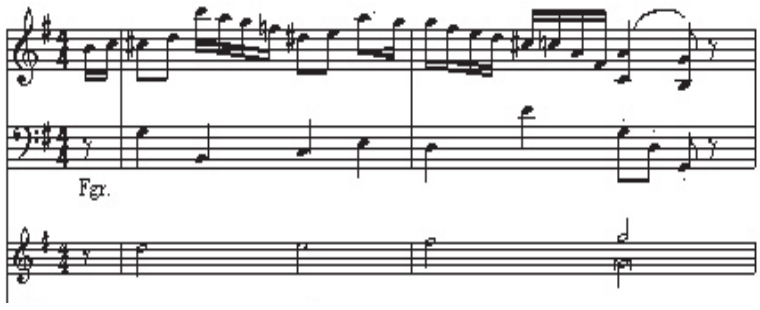
Example 4.6a:' '



Example 4.6b:



Example 4.6c: Answ



Example 4.6d: Answ

In Example 4.6, the second and third answers are more elaborated improvised variants of the first, based on the same underlying structure ('basic plan', in Schenker's terminology), which was intuitively present in the improviser's inner ear. As the work progresses, this principle continues, using the practice of more elaborated extemporised variations on a project.

Form-based stylistic extemporisations may then follow. These can be practised using models from the repertoire, generated from forms such as ABA, rondo, song form, theme and variations, sonata form, Baroque dances and preludes, and so on (see Video Examples DD5 6). The teamwork aspect continues: these usually involve two partners – bass and melody line – playing together, to encourage the ongoing flow of dialogue. At a later stage more challenging tasks can be introduced: these may involve extemporising on a basso continuo, more elaborate baroque preludes and dance forms, and simple two-theme sonata forms (at first with short and simple developments). They may also include extemporised repeats (of dance forms and sonata expositions, for example) and cadenzas.

As an example of combining extemporisation with the practice of modulations, one may encourage the improvisation of a melody while following changing (and eventually modulating) harmonic progressions. Tonally free group improvisations are also encouraged, based on motivic exchanges, overall directionality, rhythmical shape, and a common sense of pulse. In this context, leading and following skills are developed and elaborated.

In parallel, the practice of emotional expression provides another dimension of extemporisation experience, encouraging the search for a genuine and expressive personal voice, a state of flow and communication. The means to achieve this, along the lines elaborated on p. xx, involve encouraging participants to extemporise, in groups, on specific emotions and narratives as a referent. Another dimension is added by improvising together with actors, who thereby become partners to the musicians through the use of their vocal gestures (such sessions take place at the Guildhall School of Music & Drama in London). This in turn helps the musicians realise that they too are in possession of these expressive tools, and that the 'instrument can speak'. The common ground is an emotion, sometimes defined in advance, and sometimes developed as the group improvisation unfolds. The actors extemporise while using combinations of gibberish and short sections of text, and the musical gestures of the actors' intonation are taken by the musicians as material for a group improvisation. The structure of the improvisation is provided both by the musicians' phrasing (going towards clear goal-points in time), and by the dramatic narrative of the actors involved in a dialogue with them.

The following examples demonstrate teamwork extemporisation. Many of the students involved have had one semester's experience in this kind of work.

Note the parallels between listening, direction towards goal points and communication via body-language gestures.

Video example DD1

ABAVideo example DD2
Tonally enlarged ping-pong, with motivic development between horn player and flautist.

Video example DD3
Double ping-pong, tonal. Two cellists, answering the piano simultaneously, create an extended period.

Video example DD4
Double ping-pong, tonal. Two pairs (baritone/violinist and mezzo-soprano/cellist) develop a double period.

Video example DD5

Three cellists extemporise an ABAVideo example DD6

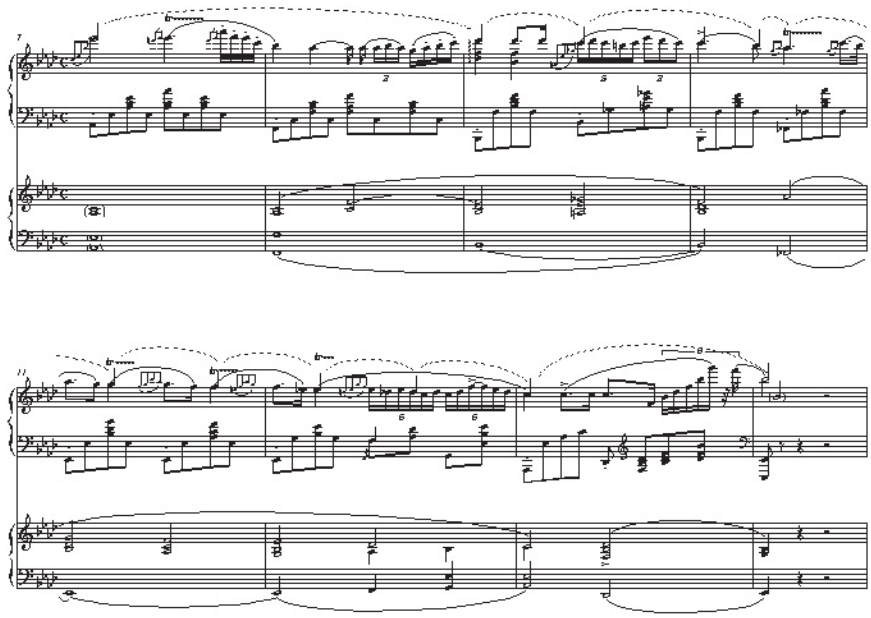
A wind ensemble extemporises an ABAWhen interpretation and improvisation meet

The properties of improvisation – the presence of spontaneous flow, active listening, communication and involvement, and the sense of unique one-time experience – are also relevant to the interpretation and performance of repertoire works.

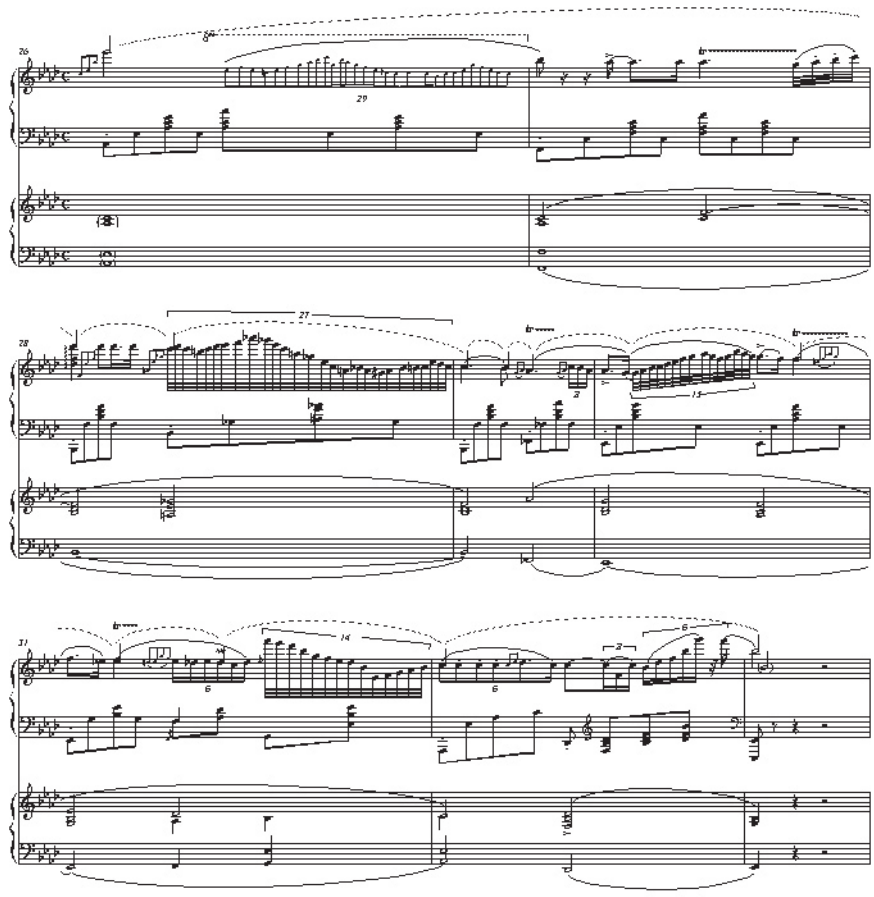
But improvisation can also find its way into the performance of classical repertoire in a more concrete sense, through what used to be common practice: cadenzas in concertos, for example, or improvised repeats where appropriate (in Baroque dances such as the sarabande, or some classical sonata-form expositions). Another meeting point between interpretation and improvisation consists of repertoire works that can be regarded as 'written-down extemporisations'. Working on improvisation in its stylistic context can help in identifying this type of composition, and then working on its improvisatory character by looking for alternative, improvised passages based on the same original reduction. (Examples of such repertoire works include Chopin's Berceuse Op. 57 in D-flat major, as well as written-down cadenzas of the Baroque and Classical eras, baroque sarabandes, and slow movements of concertos from the Baroque to the Romantic era – see also Examples 4.7 and 4.8).

Mozart's Fantasy in D minor K. 397 is unfinished, breaking off at the dominant-seventh chord in bar 97. The ending we are used to playing and hearing is by Mozart's friend Joseph Eybler and, as Christopher Kite notes, is 'inappropriate, and to be avoided at all costs' (Kite 1993: 3). In Audio Example DD7 I attempt to perform this fantasy with extemporised repeats as well as the final cadenza (from *When Interpretation and Improvisation Get Together*, France, OSF 49018).

The Chopin Nocturne Op. 9, No. 2 is one of the most fascinating examples of Chopin improvising alternative passages to his own finalised compositions. Annotations of these extemporisations can be found in several of his pupils' copies, each one very different from the others (Eigeldinger 1988). In Audio Example DD8 I perform the nocturne with several of these extemporised alterations, as written by Chopin's pupils, including the extended final cadenza.



Example 4.7: Chopin, Piano Concerto No. 2 in F minor, Op. 21, slow movement (bars 7 14). Chopin's 'written down', extemporised figuration based on the inner line indicated by dotted lines.



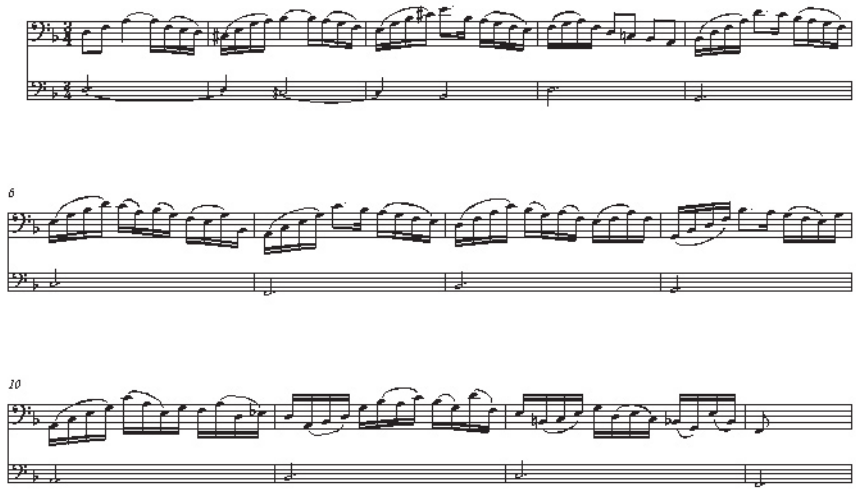
Example 4.8: Chopin's second variant (of extemporised nature), based on the same underlying harmonic progression (shown in the lower stave) as well as inner melodic line (indicated by dotted lines) (bars 26 33). Students are encouraged to extemporise their own versions – simple figurations at first, becoming more elaborate at a later stage – based on Chopin's style and the same harmonic and melodic foundations, in order to internalise them.

In parallel with the extemporisation exercises outlined in earlier sections, students are encouraged to work on their repertoire pieces combining interpretation with improvisation. Extemporising both tonally and freely on specific stylistic forms prepares the way for integrating the sense of flow with a search for structure within the reduction of a chosen repertoire text.

By superimposing the reduction with the actual text (practised simultaneously by two partners or two groups), we aim to feel the large-scale motion of the whole text while performing the reduction, and, conversely, to hear in one's inner ear the reduction while the full text is performed. This is in order to enable a long-term sense of directionality throughout the performance, searching for different possible interpretations and encouraging active listening from

within the piece ('basic plan'). Awareness of structure may add an expressive tool, as the sense of arriving at an expected goal-point contributes to the sense of stability, while a deviation from such an expectation creates emotional tension (see p. xx).

In the next example – the opening movement from J. S. Bach's Suite in D minor BWV1008 for unaccompanied cello – two students participate: one plays a reduction of the text (using the Bach urtext score only), leading the other player who simultaneously performs the actual text. The search for the reduction is based on harmonic rhythm, voice leading, thematic and structural issues (which goal-point to target) as well as interpretational decisions. Students are encouraged to look for at least two different possible reduction solutions and the interpretation derived from them. For example, the sarabande character in the movement might be felt more clearly when the partner playing the reduction prolongs the bass until the second beat of the following bar when appropriate. See Video Example DD9.



Example 4.9: J. S. Bach, Suite in D minor BWV1008 for unaccompanied cello (Prelude), showing underlying reduction.

The partner playing the bass line leads, through gestures of directionality, to chosen goal-points.

A similar approach may take place in chamber music work. In this type of exercise the ensemble looks for a possible reduction and then works on performing it order to convey the full content of the movement – as if it were the actual text being played. At the next stage, each individual member of the ensemble plays the reduction according to his or her search, leading from the reduction the rest of the ensemble, which plays the full text. The player dealing with the reduction is encouraged to improvise in places – using passing notes, appoggiaturas or suspensions – according to his or her personal narrative: intentions of phrasing, directions and points of tension and release.

The fact that students, as reported in several students' written self-assessments and interviews) often report a stronger sense of active listening, a better sense of 'possessing' the text, and pleasure among the members of the ensemble following this type of practice, is an indication of both a developing improvisatory attitude and a state of flow while working on repertoire. Some examples of comments from postgraduate string players follow.

> Given time, I noted a gradual sense of freedom in my playing which, in turn, became more spontaneous. The instrumental approach as well as my mental conceptions and perceptions were just falling into place in a moving flow that had direction and intention. I felt more able to use creativity within such a frame.

> I enjoyed the Minuet in the Mozart Quartet in a much more intimate way, having attempted to understand the form sufficiently to improvise a minuet. It has become a musical form that I own, and can play around it. I found 'dancing' with other musicians very enjoyable. Hearing then Mozart playing with it was that much more fun!

> This work had a tremendous effect on the way in which I have opened my perceptions of what is going on around me and in the music. In my mind the word control was replaced with the word flexibility.

> The lessons certainly belong to those with the strongest impact on my playing, my musical perception, my ability to imagine, foresee and endure an interpretation, my access to creativity in music and joy and my ability to accomplish performance and communication, in all my music studies so far. This work has provided a much-needed link between extreme control and discipline and absolute freedom, even desires for anarchy and enjoyment and passionate 'living in' a piece of music.

Memorising a chamber music piece by heart is another common side-effect of this work.

The following quotation comes from a postgraduate violin student who experienced this approach for the first time while playing first violin in Mozart's String Quartet in G major K.156 (first movement). After performing the reduction and then returning to the actual text – while the rest of the quartet played the reduction – he said spontaneously: 'Amazing, when I have the reduction in mind the notes of the figurations fall in place by themselves and become technically easier.' It would appear that what the student experienced was a state of flow.

In order to encourage the performers' contact with their own resources of emotional expression, one example of applying the concept elaborated on earlier (p. xx) would be to encourage players to 'speak' the musical text. The speech includes random syllables that follow the text rhythmically, while the speech-intonation line follows the direction of the actual musical line.

Conclusions

This chapter attempts to examine improvisation as a phenomenon present both in daily life and in music (as well as the other performing arts). It includes both creative spontaneity (fed by natural schemes combined with deeply internalised learned schemes and knowledge), and an element of planning (the 'referent'), together with the ability to adapt to changing situations in real-time. It involves, therefore, risk-taking and active listening.

In our investigation we have focused our attention on the following elements involved in the spontaneous aspect of extemporising:

- Natural and universal schemes (feeding our instincts) and learned schemes.
- Emotional expression – one of the main motivations for being involved in musical activity, and an element capable of influencing musical decisions such as dynamics, tempo, rhythm, timbre and pitch at an instinctive level: as we learn by looking into the natural music of speech intonation while expressing different emotions.
- Real time and flow – by definition, the territory of extemporisation.
- Structural conception, as an ability that has intuitive aspects (Schenker's idea of a 'basic plan' from which the elaborated version grows).

In the context of musical performance this chapter adopts an enlarged definition of extemporisation, to include the creative decisions of the performer regarding the *final* shape of the musical work. It may also include the elaboration of ornaments and fermata points, varied repeats, or spontaneous decisions of dynamic changes and voice-leading and so on. (Obviously these decisions must take place within the stylistic framework and an understanding of the work in question.) A sense of flow, involvement, risk-taking and active listening of the performers (among themselves as well as to the audience) can be enhanced by the practice of improvisation.

The short reference to Arabic art music throws some light on the universal element of improvisation and may provide a linking element between different musical cultures. The model that this particular musical culture proposes regarding the role of improvisation in the communication between audience and artist could serve as a source of inspiration when dealing with questions of today's relationship between audience and western art music.

In the hope of reviving this culture, the present study suggests a combined interdisciplinary approach to the teaching and learning of improvisation among classical musicians. This may be achieved by integrating knowledge of structural, harmonic and stylistic elements (based on learned schemes), with natural gestures of motion and expression (based on natural schemes). It may include the practice of emotional expression (through vocal gestures and collaborations with actors), awareness of body language and gestures of movement in the context of communicating and listening; and combining the practice of structures, counterpoint and harmonic progressions with extemporised gestures of motion. It is to be hoped that the implications of this study may contribute to breaking down barriers between theoretical knowledge and practice, as well as creating a more active dialogue between performers and listeners. This could potentially

bring us back to what Bruce E. Benson describes as 'The improvisation of musical dialogue' (Benson 2003), in which meaningful feedback exists between audience and musicians regarding the relationship between the expected and the unexpected (as it does in the domain of jazz and several non-European musical cultures). A further implication arising from this study is the issue of group dynamics in ensemble work; applying improvisatory attitudes to everything from actual extemporisations to the performance of repertoire works.

The fact that extemporisation was once the cultural property of classical music-making indicates a more creative attitude that was shared by musicians and audience alike until the late nineteenth century. The reasons – sociocultural and otherwise – for the decline of this attitude (except in organ-playing and the few other exceptions mentioned earlier in this chapter) are a subject for further research, from which both music education and the study of performance could benefit.

Existing models of improvisation tend not to make reference either to the impact of emotional expression or to the sense of directionality on extemporisation. Further research into these elements will improve our understanding of this real-time creative process and will enable us to get closer to a fully integrated model of improvisation.

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