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MUSICAL IMAGINATIONS

MULTIDISCIPLINARY PERSPECTIVES ON CREATIVITY,
PERFORMANCE, AND PERCEPTION

EDITED BY
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Musical Imaginations

Multidisciplinary
perspectives on creativity,
performance, and
perception

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Preface

The original idea for this book was developed at the 9th International Conference on Music Perception and Cognition in Bologna in 2006, when the three of us were considering how we should follow up our previous two edited books for Oxford University Press, *Musical Identities and Musical Communication*. We knew that we wanted to work in the general area of creativity, but also that we wanted to go beyond the usual bounds of the study of composition, improvisation, and performance: in particular, we wanted to consider listening, as this clearly seemed to be a central but under-researched area from the point of view of creative perception: and listening is also, of course, a fundamental part of composition, improvisation, and performance. Whilst trying to come up with a single noun that referred to creative processes, but which also represented this broader view, we were joined during a morning coffee break by Jon Hargreaves: his suggestion was the one that eventually stuck, and we soon began to see the advantages of pursuing imagination rather than creativity as such.

Looking back, the decision to avoid 'creativity' was a wise one. Although many readers will still regard this to be the main domain of this book's contents, we shall see in Chapter 1 that scholars from several different academic traditions and disciplines are beginning to express the view, for different reasons, that 'creativity' has become a hopelessly over-inclusive term: that it is time to lay it to rest, and to focus instead on the specific 'creativities' of particular people, processes, and products in particular musical domains and situations.

For both *Musical Identities and Musical Communication*, we worked out advance plans of the broad subject areas we wanted to cover, and invited experts in those areas to write on specific topics that we had in mind. For this book we abandoned that strategy, and decided instead to invite eminent authors to set their own agendas: to write about the issues which they personally felt to be the most significant or important to them, rather than to attempt any kind of comprehensive coverage, or to work to any predetermined agenda. This approach had the advantage of highlighting the most vital current issues, whatever their main focus of discipline or content. The contents list shows that the book is very wide-ranging in its scope—but it was nevertheless relatively easy for us to divide this range of topics into five broad areas, namely those with perspectives from musicology, sociology, and ethnomusicology; from cognitive, social, and developmental psychology; from sociocultural psychology; from neuroscience; and from the 'applied' areas of education, psychiatry, and therapy. We are also very fortunate that Nicholas Cook agreed to write a concluding chapter based on the contents of the book, 'Beyond creativity?', which takes an extremely wide-ranging and high-level perspective on the full sweep of these contents from a very sophisticated musical point of view, as well as making new connections and conceptual advances.

Looking at the wide range and advanced level of development of these chapters, we suggest that the status of music psychology in the 2010s resembles that of psycholinguistics in the 1960s and 1970s. Language is a complex symbol system which can not only map directly on to the real world, but which can also enable creative expression in the form of poetry and metaphor, for example. Chomsky's revolutionary view of the child as an active acquirer of language led to new developments which would not have been possible within the earlier view that language developed as a result of children being taught and reinforced. Music is an even more complex and abstract symbol system whose elements do not necessarily correspond in any meaningful way

with the real world: yet recent advances in music psychology mean that it can now deal with musical issues previously regarded as intractably difficult to subject to empirical enquiry.

Topics such as music and emotion, composition and improvisation, performance and performance traditions, listening strategies, the nature of musical styles and genres, social collaboration, identity formation, and the development of psychologically-based strategies and interventions for the enhancement of performing musicians are now within our grasp because the sophistication of the discipline has reached a new level. The book deals directly with these issues, demonstrating how music psychology is now making a demonstrable contribution to their understanding and enhancement.

We would like to express our gratitude to the reviewers of the original drafts of all the chapters, whose invaluable (and unpaid) work has greatly improved the quality of the book, namely Anna-Rita Addressi, Aleksandar Aksentijevic, Leslie Bunt, Charles Byrne, John Finney, Tuomas Eerola, Alf Gabrielsson, Christian Gold, Allan Hewitt, Alexandra Lamont, Elaine King, Helen Minors, Laura Mitchell, Susan O'Neill, Katie Overy, Stephanie Pitts, Suvi Saarikallio, Keith Sawyer, Mari Tervaniemi, Jason Toynbee, Graham Welch, Tony Whyton, Susan Young, and Betty-Ann Younker.

We should like to thank all those authors and publishers who have given permission for copyright material to be reproduced: the details appear within the chapters concerned. We would like to thank Linda, Jon, and Tom Hargreaves, as ever, for their valuable discussions and different perspectives: Matthew, Thomas, and Anna Miell, Kim Lock, and Vicky Watters for their various forms of invaluable support throughout: and Tracy Ibbotson, Maria MacDonald, and Eva MacDonald for their support, encouragement and constant good humour. We are also indebted to Martin Baum and Charlotte Green of OUP for their constant helpfulness, efficiency, encouragement, and patience.

David Hargreaves, Dorothy Miell, and Raymond MacDonald
March 2011

Postscript, August 2011

Anthony Wigram, the author of Chapter 27, passed away in June 2011: we are very fortunate that he was able to complete the chapter for us, and would like to add our voices to the many tributes that have been paid to his outstanding contributions to music therapy and research.

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Chapter 26

Creativity in improvisational, psychodynamic music therapy

Jaakko Erkkilä, Esa Ala-Ruona, Marko Punkanen, and Jörg Fachner

26.1 Introduction

In this chapter, music therapy is considered in a psychiatric context. To be exact, the focus is on improvisational psychodynamic music therapy (IPMT). The main influences of IPMT come from the theory and concepts of psychoanalysis, although the numerous reforms to the original theory, as well as the many unique qualities of IPMT, have shaped it in many ways over the decades. The concept psychodynamic has been developed for describing those models of therapy, which more or less deviate from classical psychoanalysis and its theoretical standpoints. In his book on music psychotherapy, Kenneth Bruscia (1998) defines music psychotherapy as the 'use of music experiences in addition to or in lieu of the traditional types of verbal discourse . . . in short, music psychotherapy is the use of music experiences to facilitate the interpersonal process of therapist and client as well as the therapeutic change process itself'. In music therapy within the context of psychiatry, the psychodynamic approach is the most common. Perhaps the biggest effort in early years in connecting the theory of psychoanalysis and music was by Pinchas Noy, who in the 1960s wrote his famous series of articles in the *Journal of Music Therapy* (Noy, 1966, 1967a, b, c, d).

26.2 Musicality and creativity in IPMT

A fundamental basis of music therapy is that it is not restricted to those people with musical training or talent. Active music therapy, in which clients are supposed to play or improvise music, is based on the idea that every human being has a natural propensity to create and respond to sounds expressively and aesthetically (Bruscia, 1998). Even when talking about free improvising, making music in music therapy is still connected to the idiomatic nature of one's musical, social, and cultural history (Metzner, 1999). That is, although clients in music therapy may have diverse connections to and capacities in music, there is always some kind of common root or core, which helps them engage in music-making.

In IPMT, free improvisation can be seen as a means of self-projection and free association (Hadley, 2003). Bruscia (1998) defines improvising in music psychotherapy as 'playing around with sounds until they form whatever patterns, shapes, or textures one wants them to have, or until they mean whatever one wants them to mean' (p. 5). In IPMT, the therapist's role (not only the client's) as an expressive and creative actor is one of the unique characteristics of music therapy. While this aspect of music therapy is no doubt challenging and not always easy to manage, many clinicians see this feature as being beneficial, for instance, when creating the working alliance with the client.

If a music therapy client does not have to be musically trained or talented, what is the situation with regard to creativity? If a therapy, such as music therapy, is based on the exploitation of a form of art, doesn't it require a special creative competence? It is true that creativity is often associated with the extraordinary capacity of a person who may be a recognized painter like Picasso, or an excellent scholar such as Einstein, and that intelligence and creativity are often thought of as being interrelated. However, research on creativity suggests that the relationship between intelligence and creativity is rather weak, with various relationships possible (Barron & Harrington, 1981; Simonton, 1994; Sternberg, 1997; Torrance, 1975). Similarly, it can be concluded that there are many layers of creative functioning from simple, everyday insights to seminal breakthroughs in art or science. One of the starting points of music therapy is a human being's 'propensity to create', the idea of which obviously assumes that every human being can create.

In music therapy, it is the client who is the focus of the work. Thus, it is the client's willingness, capacity, and competence to express himself/herself musically or to be creative that defines the pace and the profoundness of the therapeutic work. Whatever the client's starting point in music therapy—due to their personal and illness-related factors—it is the clinician's task to adapt to it, as well as to communicate on the basis of the client's moment-to-moment expressive, interactive, and creative potential.

26.3 Some client groups with limited ability to create

Some psychiatric problems narrow the client's emotional, social, and cognitive life, causing withdrawn-like behaviour, and even limit or hinder the function of symbolic processes. These kinds of shortcomings inevitably affect one's creative ability and mental work in general. In psychosis, for instance, the client's ability to symbolize can be provisionally hindered. According to Schaverien (1997), psychosis can be characterized as the absence of symbolic forms and the impossibility of communal understanding. Basch-Kahre (1985) stresses that borderline patients are also not normally able to use nor understand symbols, but they tend to split the symbols as well as the emotional sensorimotor configurations into meaningless fragments. Because the symbols are out of context they tend to be used in an aggressive and destructive way.

Music therapy clinicians who have worked with people with psychosis have noticed how their inability to symbolize shows up in improvisational work. One of the most profound analyses and descriptions of improvisational music therapy with psychotic clients has been made by De Backer (2004; De Backer & Van Camp, 2003). He has specified different phases in psychotic clients' improvisational music therapy, from non-communicative and non-symbolic play (sensorial play) to communicative and symbolic play (musical form)—a journey which is often long and hard. Interesting here is the finding that even though there is no sign of symbolic processes, interaction, or creativity in the first place (in sensorial play), it is nonetheless an important preparatory phase for the latter, more dynamic phases, and for the process of recovery.

Mood disorders such as depression and anxiety may also affect symbolic processes and creative functioning. It is known that depression and anxiety induce social and interpersonal withdrawal behaviour and negative emotional states in daily life.

Withdrawal from novel and unfamiliar stimuli is associated with frontal brain asymmetry, as correlated in electroencephalography (EEG) studies of depressed patients (Tomarken & Keener, 1998). According to Tomarken and Keener (1998), depressed individuals are characterized by a bias in favour of a negative valence withdrawal system to a positive valence approach system. Withdrawal motivation is strongly influenced by a negative event or expectations (Elliot, 1999), diminishing interest toward activities, and causes a loss of energy, indecisiveness, and lack of

concentration, which, in terms of searching for social connection, enrichment, and solutions for their problems, will decrease their creative behaviour.

Craig (2005) explains that emotional asymmetries in the left and right forebrain are mediated via an autonomous para-/sympathetically innervated energy expenditure/maintenance system connected to the limbic insula and cingulate activations. Depressed clients' dominant right frontal withdrawal activation prevents energy expenditure on relationships and approach behaviour in the social world. Thus, depressed clients are mostly absorbed inwardly, spending their energy on introspection and rumination while being highly sympathetically aroused.

26.4 Theory and practice of IPMT in a nutshell

Psychoanalytic theory has had a strong influence on psychiatric music therapy since the early years of professional music therapy. Musical meanings and experiences have qualities that have much in common with the core ideas and concepts of psychoanalytical theory, which is probably one of the reasons for this 'alliance'. For instance, unconscious feelings, or the contents/functions of pre-conscious level (see Figure 26.1) such as emotions, metaphors, associations, and images are also core elements of musical experiences (Erkkilä, 1997a, b; Wigram et al., 2002). When considering clinical improvisation from a psychoanalytic perspective, its role is to activate the symbolic process, and let the improviser act creatively in the domain of non-verbal experiences, i.e. at the pre-conscious level, and thus bring out primary process orientated material to be dealt with verbally.

The primary process consists of qualities that are often associated with creativity as well. After Rapaport (1950), the primary process is seen to regulate unconscious wishes, needs, and affect, is able to tolerate and master warded-off affect, and in addition allows the mobility of ideas, i.e. memories and experiences are fluently interchangeable. No wonder, then, that in the analytical music therapy tradition (Priestley, 1975, 1976, 1983) clinical improvisation is seen as representing the domain of primary process functions (Bruscia, 1987, 1998; Erkkilä, 1997a, b). The secondary process is a conceptual organization of memory, responsible for logical, practical, and realistic behaviour and thinking. It also controls and restricts affect (Rapaport, 1950). In improvisational music therapy, secondary process functions are present, for instance, when verbally dealing with the experiences triggered by improvisation. Usually this happens after improvising, and tends to concretize and make logical what has been experienced while improvising.

Many music therapy clinicians have found Winnicott's ideas about potential space and importance of play highly relevant to improvisational music therapy. He writes that 'psychotherapy has to do with two people playing together. The corollary of this is that where playing is not possible

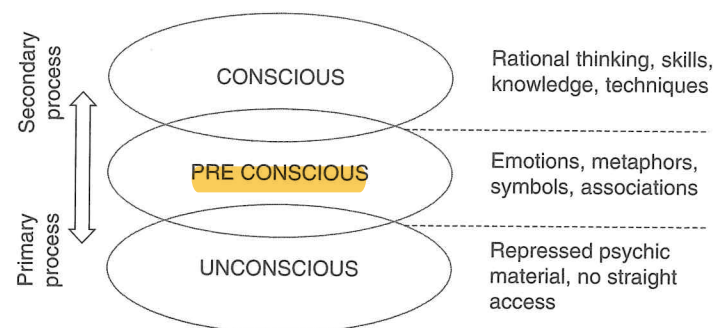


Fig. 26.1 Primary and secondary processes associated with the functions of the different layers of consciousness.

then the work done by the therapist is directed toward bringing the patient from a state of not being able to play into a state of being able to play' (Winnicott, 1968). Bringing the patient into that state presupposes creating a specific, holding environment between the therapist and client, and this environment is called a potential space. In his essay on Winnicott's concept, Ogden (1985) describes the potential space as an area of experiencing that lies between fantasy and reality, including, for instance, the play space, the area of cultural experience, and the area of creativity. These definitions characterize nicely the ideal setting of improvisation in music therapy. When Winnicott talks about play, he of course means playing like in children's play. However, music is also 'played', and there is much in common between these two forms of play.

Some music therapy theorists (De Backer, 2004; Metzner, 1999) describe the clients' experiences in improvisation as proto-symbolic. They refer to Winnicott's ideas about transitional space and transitional object when interpreting certain musical phenomena—such as appearance of melody in improvisation—as not yet being a symbol as such, but a symbol in a pre-state. Thus, a melody in a client's improvisation may be a 'signifier' but not an 'open signifier' (De Backer, 2004), and can thus be seen as the first marker of awakening symbolization. This kind of possibility of operating in the proto-symbolic field of experiencing enables work with clients with limited symbolic capacity, such as psychotic clients or borderline clients.

26.5 Role of music in IPMT

Numerous case studies and clinical reports have demonstrated how communication via music has been possible with clients with severe mental retardation. These findings have led music therapy scholars to seek answers from theories of early interaction, in particular in finding out the role of sounds as such (e.g. sound communication between the mother and child), separately from music. There is something of a consensus that the origin of music arises from the earliest non-verbal human communication, and thus came before speech. In particular, Daniel Stern's (1985) theories have had a strong influence on recent definitions of the meaning of music in music therapy.

A newborn baby is said to perceive music as being meaningful, not as music as a form of art, but as part of her innate capacity to recognize various dynamic forms in the music due to their affective meaning, no matter whether they represent auditory, visual, or tactile domains (Erkkilä, 1997a; Pavlicevic, 1997; Lehtonen, 2007). Thus, beyond the music-specific rules and theories there is a world of universal meanings embedded in music, which is accessible to nearly everyone. In IPMT, the most relevant musical meanings are perhaps more often based on emotionally loaded dynamic forms than music-specific phrases and patterns with certain musical logic. Furthermore, when removing the 'meanings' from their 'musical mask', it is easier to make connections between primary process functions and meanings embedded in the improvisation. In summary, how we understand music in IPMT differs substantially from traditional definitions of, and meaning formation in, music. In addition, music in IPMT is often understood as representing primitive and early forms of communication, thus having a specific potential for reaching warded-off experiences (passing the defences) as well as acting on the areas—such as proto-symbolic expression—not easily accessible in the verbal domain.

The ideas presented above are not dissimilar to concepts of verbal psychotherapy. De Alvarez De Toledo (1996) describes somewhat similar ideas in the psychoanalytic process when she describes the difference between the content of speech and unconscious impulses behind it. She points out that sometimes the client's unconscious impulses are manifested in the analyst's emotions and experiences, and that the content of the client's speech is not necessarily connected to these emotions and experiences. She continues that sometimes those emotional experiences

with most direct connections to unconscious fantasies are not at all comprehensible based on the content of the speech. In IPMT, improvisation can be seen as a natural, non-verbal medium for such emotional experiences.

26.6 A model of the recovery process in IPMT—creativity perspective

The model to be represented next was developed and revised into its final form during the training of research therapists who worked in our depression study (Erkkilä et al., 2008). For this article, we have refined the model by focusing more on creativity aspects. The therapeutic approach to the study of music therapy for depression is based on the ideas and principles presented in the previous chapters of this article.

The goal of the training was to achieve a shared understanding of theoretic-clinical issues, and to develop appropriate and suitable interventions to meet the needs of the target group. A particular emphasis was placed on process handling—how to build up and maintain a therapeutic relationship, how to achieve balance between verbal and musical processing, and how the therapeutic process is conducted in this particular setting and frame of therapy (Erkkilä, 2007; Erkkilä et al., 2008).

It is interesting that the meaning of creativity has not only been a matter for art therapies. After Benau (2009), psychopathology can be understood to represent an incomplete or interrupted creative process, and psychotherapy as a collaboration between patient and therapist with the aim of liberating the patient's innate, creative potential. Benau argues that there is a long history of trying to delineate the conceptual and practical connections between the creative process and the process and techniques of psychotherapy. The isomorphism between creativity and psychotherapy probably originates from the findings that many great artists have struggled with mental problems, in particular with depression, and that the symbol formation and creative process in general can be seen as an attempt to articulate a personal problem via the symbolic product (Rothenberg, 1979; Heilman et al., 2003).

In the definitions there are determinants of creativity such as novelty and originality (Heilman et al., 2003; May, 1975; Soukhanov, 1988), passion and commitment (May, 1975), different stages such as preparation, incubation, illumination—or 'Aha!' experience (Heilman et al., 2003)—and verification (Wallas, 1926), and finding unity in what appears to be diversity (Bronowski, 1972). When investigating creativity in the context of working life, for instance in the design industry, determinants such as appropriateness (Sternberg & Lubart, 1992) and producing (Naiman, 2006; Soukhanov, 1988) are employed.

These determinants of creativity can be related to the process of creativity in IPMT. For instance, when improvising music there are numerous possibilities to create novel sound patterns and sound combinations with a special meaning. However, without certain commitment or passion it is not likely that this will happen. It is also typical in IPMT, in particular at the beginning of the process, that the meaning of improvisation is more or less unclear. The improvisation may sound like a collection of divergent notes with no sense of unity. What often happens, however, is that after a while, the client becomes increasingly engaged in improvising, and becomes gradually able to make connections between the sound patterns and their symbolic meanings—i.e. to see the unity. This phase can be compared with the concepts of incubation and illumination. Before these, the preparatory phase is, of course, necessary. Finally, a very important aspect of IPMT is its goal orientation. Creativity is harnessed for recovery, which means that the creative insights should serve the client in finding solutions for her problems, and in putting them into action.

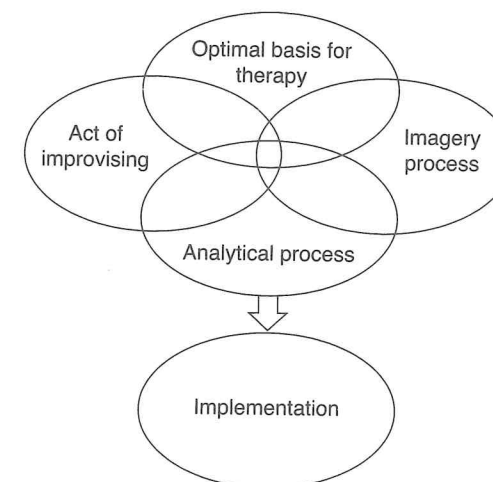


Fig. 26.2 A model of the recovery process in IPMT. Some of the model elements overlap each other.

In the next section, a model consisting of five progressing stages of creativity in IPMT will be presented (see Figure 26.2). These are: 1) optimal basis for therapy, 2) act of improvising, 3) imagery process, 4) analytical process, and 5) implementation. These stages can be seen within a single therapy session (micro level) but also during the whole course of a therapy process (macro level). The focus of the examination here is on creativity, but it is interesting to see the many connections between the two concepts, creativity and recovery.

26.6.1 Optimal basis for therapy

Regardless of the form of therapy, there are certain commonalities and contents that have a crucial effect on the successful clinical process (i.e. Wampold, 2001). According to Grencavage and Norcross (1990), the common factors of psychotherapy are client characteristics, therapist qualities, change processes, treatment structures, and relationship elements. To mention some of the contents of these factors, the success of therapy (partly) depends on the client's motivation and expectations, the therapist's emphatic competence and encouragement, how therapeutic change processes are enabled and present in the work, how coherently and faithfully the clinical approach is carried out, and how good a relationship and working alliance there is between therapist and client. In IPMT these factors are important as well.

26.6.2 Act of improvising

Improvisation can be a creative process, but this is not always the case. If there is not an optimal basis (Stage 1) for therapeutic work, or the client's ability to symbolize is deficient due to illness or other reasons, improvising is not much more than action. When improvising is in a therapeutic sense productive, it is linked to potential space (Winnicott, 1968), and presupposes certain commitment, passion, and motivation. Only then can improvising lead to a new kind of thinking, or diverse thinking (Heilman et al., 2003), which is one of the determinants of creativity.

26.6.3 Imagery process

When clinical improvisation has creative potential it triggers images, emotions, symbols, memories, and associations—all very important for therapeutic work, being a kind of window to one's

unconscious (Erkkilä, 1997a, 2004). These experiences can occur simultaneously with the improvisation (non-verbal), but often they are brought out verbally when listening to the improvisation, and when discussing it with the therapist. The imagery process is primary process orientated, and includes processes typically associated with right hemisphere functions such as primary emotion, emotional communication, and global attentional perspective (Barret et al., 1998; Heilman et al., 2000; Robertson et al., 1988). When the imagery process is activated by the improvisation, creativity is involved.

26.6.4 Analytical process

Because IPMT is goal-orientated work, creativity as such, without appropriate connections to the issues of recovery, is not sufficient as a goal. If the product of a creative act—improvisation—is an image with emotional loading, shedding light on the mental problems and their solutions, there is still a need for analytical and more cognitive integration of experiences. Gaining new kind of understanding and relating the creative insights to the client’s everyday life can be associated with secondary process thinking, and with left hemisphere functions such as focused attention and analytical and logical thinking (Barret et al., 1998; Heilman et al., 2000; Robertson et al., 1988). When the analytical process is linked to the imagery process in an appropriate way, by serving the goals of therapy, it may result in solutions (or changes) that are ready to be put into action.

26.6.5 Implementation

Naiman (2006) defines creativity as the act of turning new and imaginative ideas into reality. This is exactly what the client has to do with the creative innovations and solutions born in therapy. In psychotherapy terminology the ‘action plan’ is often called a change, which can be whatever change from pathological behaviour, functioning, feeling, or thinking to non-pathological. Implementation is successful if the client feels better and has a better quality of life, and at least to some extent gets rid of the illness.

26.7 Clinical examples of a creative process

The cases presented in this chapter are based on a study in which we investigated the effect of active music therapy in the treatment of depression. That study was a randomized controlled trial (RCT) with a two-arm design (33 clients in intervention, 46 clients in control group). The amount of individual music therapy offered was 20 biweekly sessions, each lasting 60 minutes. The selection of instruments was confined to mallet midi instruments, electronic hand drums, and Djembe-drums. This setting enabled musical interplay and expression in both a rhythmic and melodic-harmonic way, but was easy enough for everyone to employ. All music produced in the sessions was recorded to computer, and it was possible to listen to these during the same session or afterwards for further processing and discussion regarding emerging themes. No other listening to music was used as a method (Erkkilä et al., 2008).

The basic principle in the sessions was to encourage and engage a client in expressive musical interaction based on a free starting-point, or certain idea. The aim was to establish a shared creative space for providing favourable conditions for the therapeutic change. The therapeutic process was based on mutual construction of meaning of emerging thoughts, images, emotions, and expressive qualities. Musical expression and verbal discussion took turns, and this was individually modified depending on the personal needs and conditions of a client. Because of the special setting and frame of research therapy, some supportive and resource-orientated elements were added to the approach (Erkkilä et al., 2008).

26.7.1 The case of Erik

Erik, a young male adult, started his music therapy clearly motivated. Having suffered from anxiety and depression for years, and having also had problems with insomnia, he ended up suffering from exhaustion. He received antidepressant medication, and some remedy for his sleeping problems, too. During the last year before music therapy he had not been able to take care of his work. The motivation for therapeutic work rose from his experience that he ‘knows’ his problems, but had not found any relief or change to come true in real life. Something was missing.

Optimal basis for therapy (stage 1): the first phase of the process was building up safe enough conditions and the basis of a working alliance. Erik adopted the therapeutic approach quickly, and musical interaction started relatively easily. Musical interplay also revealed an evident analogy between characteristics of his musical interaction and his script in social situations. He recognized his problems in losing personal integrity and pleasing others (also the therapist), in particular, feeling anger was threatening, and he had to force these feelings back. But when beating a drum he was able to discharge his inner tensions, and he named an extremely powerful improvisation in session 4 as ‘the story of me’. He felt safe enough to be able to express his real emotions, and started to explore them.

Act of improvising (stage 2) and Imagery process (stage 3): the act of improvising offered a new perspective on his previous life history and negative experiences. Erik explored his inner feelings and reactions in a very sensitive way by using musical interaction or playing alone. The emerging themes and emotions were further examined both verbally and musically. His curiosity was awakened, and Erik started to find new ways to experience and see himself. Occasionally, there were also moments when Erik felt guilt and shame, hopelessness, and despair. In some of these situations Erik got stuck with his expression and he did not find his way out. However, he used the therapeutic support very elegantly by inviting the therapist into the interplay and having the needed emotional experience of unconditional acceptance. The emotional bond was deep, and Erik experienced this mutual presence as a significant reconstructive moment. Musical interplay became synchronized and emotionally congruent.

Analytical process (stage 4): analytical processing progressed hand in hand with the imagery process. Erik’s emerging curiosity, creativity, and willingness to react in the here-and-now situation led the process to another level. He was aiming to experience happiness, joy, and feeling free. Erik accepted his rights for taking care of his own needs and to nurture his own well-being. Erik gained lot of new insights into his personal history with its emotional loads. The interrelatedness between the past, the present, and future started to look understandable and meaningful. The emotional spectrum extended, and he was encouraged to show his feelings and talk about his real thoughts in social situations. He was reaching for his independence.

Implementation (stage 5): during the last phase of the therapy process, Erik was able to go back to work. He also took up some hobbies, and he trained his ‘new potentials’ in different social situations.

Table 26.1 Psychiatric test scores of Erik before and after music therapy

	Erik (pre)	Erik (post)
MADRS	26	9
HADS-A	10	5
GAF	61	71
RAND-36	65	81
TAS-20	70	48

With the help of his physician, his antidepressive medication was reduced. Erik described his therapy process afterwards by writing:

Connection with the therapist was established quickly. Therapy sessions became to be kind of an asylum, a place where it felt good to be in. One of the finest experiences in the therapy was when I realized how much new possibilities music and playing brings to the processing of depression. If I was in trouble, the grounding rhythm by the therapist enabled me to explore new ways and let the creativity flow. Also when we played together by giving the space and taking it, was a fine experience of mutual sharing.

It is obvious that what was missing in the beginning was found during the process, and the desired change was realized.

26.7.2 The case of Kati

Kati was a 40-year-old married woman with three children. She had been depressed for many years and she also had anxiety disorder, and took medication for both. She felt that she couldn't express her feelings in her relationship and that her husband didn't understand her emotional needs. She felt that she was alone with her feelings of frustration, depression, and anxiety. She also noticed her attempts to reach perfection in her activities and difficulties in setting boundaries, which easily led her to a state of fatigue.

Optimal basis for therapy (stage 1): Kati was curious about participating in IPMT, but at the same time she was very scared that she would fail. She thought that improvisational music-making would be some kind of performance where she could fail and embarrass herself. We used the first five sessions to build and create enough safety and trust for creative acts to happen. That meant gradual, safely-limited mutual experiments with instruments and a lot of empathic support and encouragement from the therapist to help Kati feel safe enough.

Act of improvising (stage 2): at the beginning of the therapy process Kati's improvisations had very clear structure, which indicated her insecurity and need to control the situation. Gradually she was able to liberate herself from this strict structure and she started to play around, trying to find new ways to express different emotions through the instrument. That made her smile, and she felt more calm than usual. Symbolism also appeared more and more in her playing. Gradually she started to play about her relationships and get more in touch with her real feelings, like anger and sadness. She could express those feelings in her playing, and afterwards when we listened to the improvisations she could also reflect and verbalize it.

Imagery process (stage 3) and Analytical process (stage 4): session 12 was a clear turning point in Kati's therapy process. It was also very meaningful when evaluating the development of her symbolic process through improvisation. In initial discussions, Kati said that she had felt very anxious during the day and tried to regulate that through different activities. She said that she really needed something new in her life. The starting point for our improvisation was to express

Table 26.2 Psychiatric test scores of Kati before and after music therapy

	Kati (pre)	Kati (post)
MADRS	31	15
HADS-A	14	2
GAF	51	68
RAND-36	35	62
TAS-20	42	34

her present feelings through sounds. What followed was a 30-minute long improvisation. The main difference between this improvisation and her earlier improvisations was the great use of dissonance and chaos in her playing. There were no longer strict limits or restrictions in Kati's musical expression, and for the first time she also used drums by her own choice. This demonstrated a remarkable progression and change in her recovery because drums symbolized for her most clearly feelings of aggression and hate, which had been forbidden and frightening emotions to her for many years. When she reflected upon her emotional state after the improvisation she said that she felt relieved and much calmer than before the improvisation. After some hesitation, she also told me that she committed suicide in that improvisation.

Implementation (stage 5): this was clearly a symbolic and creative act to express and share something that she had held inside of her for many years. Now she was able to express her anger outwardly, and experience that another person can tolerate and share her emotions. After this improvisation Kati's recovery process developed very nicely. She was able to participate in and enjoy activities that she used to love but which had been impossible for her during her period of severe depression and anxiety.

26.8 Measuring recovery in IPMT

26.8.1 Results of psychiatric tests

Before music therapy Erik met the criteria for moderate depression (MADRS scores 20–29), for mild anxiety (HADS-A scores 8–10), and for alexithymia (inability to recognize and verbalize emotions, TAS-20 scores ≥ 61). After the music therapy he was no longer depressed, anxious, and alexithymic, and his social, occupational, and psychological functioning (GAF) and quality of life (RAND-36) had increased (see Table 26.1).

Kati was severely depressed (MADRS scores >29), and moderately anxious (HADS-A scores 11–14) before music therapy. After the music therapy there was only mild depression (MADRS scores 11–19) and no anxiety. Also her social, occupational and psychological functioning (GAF) and quality of life (RAND-36) had increased markedly (see Table 26.2).

26.8.2 Electroencephalography and creativity in IPMT

EEG measures the actual state and working mode of brain processing, and when compared to an EEG database of normal processing z-scores may indicate possible abnormalities or subtle developments. Frontal alpha asymmetry measures the degree of lateralization of approach and withdrawal behaviour in depression. Looking at their changes in the rest EEG (as a default state of brain activity) tells us about general changes due to interventions (Niedermeyer & Lopes de Silva, 1993).

26.8.3 Frontotemporal and parietal change in potential space

Erik had been under high emotional tension, and was also angry and fearful of being neglected in social relationships. This high tension was reflected in his pre-test theta z-scores that were above normal. Comparing his brain activations in rest before and after therapy, theta indicates more left frontotemporal amplitude increases and a strong decrease of left parietal alpha. Both topographic changes in the post MT rest EEG may reflect the change in the scores and indicate a change of attentional processing, sensory integration, and possibly a more distinct and rational differentiation of his emotional processes.

In Kati's case, comparing pre- and post-rest EEG power, a parietal change on theta and in high alpha frequencies as well as an increase of frontal midline theta was revealed. High alpha

reflects changes in long-term-memory retrieval (Klimesch, 1996) and differentiation during music listening (Krause et al., 1999; Petsche et al., 1997). As parietal cortex is concerned with attention, spatial cognition, and sensory integration (Kolb & Whishaw, 2009), parietal increases in theta and alpha may reflect an increased awareness and shift of attention towards her new experienced degrees of freedom and recognition of own emotions and space needed for herself.

26.8.4 Anxiety, theta changes, and relaxation in 'therapy asylum'

The increases of frontal midline theta may reflect reduced anxiety. Does music therapy act like an anxiolytic or is it offering a way to relaxation and positive imagery in action? Anxiolytics are also found to increase frontal midline theta power; theta increases have been reported in meditative concentration, reduced anxiety and sympathetic autonomic activation, in task demands in virtual spatial navigation, focussed and sustained attention, working and recognition memory (Mitchell et al., 2008; Gruzelier, 2009). In a music listening study, frontal midline theta increased significantly when comparing EEGs before and after 22 seconds of listening to the music with content rated before as pleasant (Sammiller et al., 2007). This research correlated the process of getting into a state of relaxed focused attention on perceiving the flow of music. When training musicians for optimal performance, those who received theta biofeedback prior to their performance were judged by independent raters as significantly better than those who received no such feedback (Egner & Gruzelier, 2003).

When individuals are in a 'playspace' they can produce a positive image of themselves acting and train their brain to make new connections in order to be prepared for real-life situations. Heilmann et al. (2003) suggest that a low-arousal and relaxed state promotes novelty and creativity in terms of illumination processes and memory retrieval by connecting different brain areas than those normally used for problem solving. Getting relaxed in a 'therapy asylum', and interactive play within a potential space of perceiving and acting during improvisation and imagery processes, is a prominent part of IPMT. Thus, creativity in music therapy offers a framework for utilizing divergent brain connectivity and new approaches towards former habituated behaviour patterns to be explored.

26.8.5 Right frontal hemisphere processes and perception-action system in music therapy

After therapy, Erik displayed lower scores on depression and anxiety scales, but in both cases alpha activity measured at electrode sites F7 and F8 in the frontotemporal cortex shifted to the right. This shift may indicate that the emotional process targeted in music therapy helped the clients on a prosodic level to express and differentiate the underlying emotional tension, anger and anxiousness of their withdrawal. Koelsch has stressed the close connection of semantic and syntactic functions in music and speech processing (Koelsch et al., 2004). Processing of melody is connected to pre-motor speech process activation at larynx level, as music listening initiates pre-motoric level movement processes such as dance, and facilitates hand-eye coordination (Aldridge, 1996). The music therapy process focuses on the performance and expression of emotions musically on pre-verbal and symbolical level in a space of play. Thus, music therapy structures and integrates the auditory perception and the motor action system (also discussed as the mirror neurone system: Koelsch, 2009), which mediates and organizes learning and recognizing where and when to act, as done in the temporal flow of improvisation with symbolic content. This process seems to transfer from pre-conscious to consciousness and motivates acting and performing verbal interaction in the social domain.

26.9 Conclusion

Improvisation plays an important role in non-verbal expression and interaction in music therapy. Psychotherapists in the verbal domain have also dealt with the psychotherapeutically relevant meaning of non-verbal expression and experiences. However, what usually separates verbal psychotherapy and IPMT is that the music therapist has a more active role as a creative, expressive actor. This may make IPMT sometimes difficult to control and manage for a therapist, but it also opens new channels of information flow and experience to the client's world.

In this chapter we have defined creativity as the competence of everyone, and as the quality, which we all need, when finding solutions in challenging situations, no matter whether they are in the emotional, social, or cognitive domain. In music therapy, restoring the previously lost ability of creativity may be a specific focus of the therapeutic work. This is true in particular with some pathological states such as psychosis, with clients with borderline diagnosis, or sometimes with clients with depression or anxiety diagnosis.

The concepts of recovery and creativity seem to be strongly inter-related in psychotherapeutic work. It is interesting that the inter-relatedness of the two concepts have been quite often made outside art therapies. In particular, psychoanalytic and psychodynamic psychotherapy traditions seem to stress the connection between creativity and recovery.

As IPMT music therapists we have often seen how creativity and recovery go hand in hand in an appropriate way. Rather often the clients adopt a method of working (clinical improvisation) quickly—during the first two to four sessions of the therapy process—even though the method may at first glance appear rather extraordinary for them. When the method has been adopted in its full sense, the various psychic contents that are linked to the clients' illness become both a motivating force and a target of the creative process of recovery. Flinging oneself into the creative process of IPMT, and into the symbolic and emotional working that follows, often leads to the development of new insights into one's illness, while at the same time guiding the client towards the necessary process of change.

A big challenge for all forms of therapy in Western healthcare are the issues of effectiveness and evidence. In our RCT we administered an exhaustive battery of psychiatric measures, and used brain imaging methods, when evaluating the effect of IPMT. The two client cases of this paper, both being examples of clients who according to the outcome measures did clearly benefit from the therapy, fitted well to the progressive model of recovery/creativity as well. Thus, emerging creativity during therapy, as it was described in our model, may act as an indicator of the process of recovery in general. Adopting methodology and techniques of brain research seem promising from psychotherapy research point of view as well. Freud's initial psychotherapy concept was based on neurologists' ideas communicated to Wundt in 1895. Recently, his ideas have been reconsidered in terms of brain plasticity and when looking at two cases from the stance of rest EEG we were able to describe changes that were linked to the process of recovery in IPMT, displaying decreases in psychometrics and, accordingly, different activations and connections of brain areas.

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Chapter 27

Developing creative improvisation skills in music therapy: The tools for imaginative music-making

Anthony Wigram

Applied improvisation in clinical work relies on the development of a range of musical techniques combined and integrated with therapeutic methods. Creative skill in improvisation is developed through the learning and practice of a wide range of musical techniques which can be spontaneously and intuitively drawn on to construct a flow of music. Improvisation has been described as a spontaneous creation of sounds and silence constructed within a framework of beginning and ending. The degree to which this production creates structured or unstructured music will be discussed, as well as which musical frameworks and styles can be incorporated. The differences between improvisation and extemporization, and between free and structured improvisation will be addressed, as well as the dynamics of the music and how they influence its character and mood. Examples from clinical cases will demonstrate the potential for inter-musical social engagement, musical and emotional synchronicity, and communicative musicality through improvisation.

27.1 Introduction

Improvisation is a creative process both for the player and the listener, and imagination plays a central role in that process. In music therapy, imagination finds its place in the creative development of improvised music, and this chapter will explore both the technical aspects of improvisation as a creative force as well as the potential for themes, images, stories, and pictures to provide the imaginative fuel to drive the improvisation experience. There is something about improvisation that fascinates some and terrifies others. We know it can be the most creative experience in the world, but it can also be the most frustrating and challenging. The art of composition is inextricably linked to improvisation, and the spontaneous creation of music in all societies is centred around cultural styles of improvisation. It has attained some of its most complex expression in the free jazz culture emerging throughout the 20th century, and the skills of jazz improvisers fascinate and hypnotize their audiences of aficionados. However, it is still considered almost a magical skill by many—a gift granted to the chosen few, while the rest are left with pieces of paper covered in black dots as their ‘inspiration’.

This chapter discusses the acquisition of improvisation skills, different styles of improvisation, and how such a flexible and creative form of music-making can be applied in therapeutic work. Finally, the results from a research study where improvisational music therapy was applied to achieve measurable benefits for young children with autism will be described. The first steps for learning how to improvise may happen early in life, while for some musicians improvisation may never be either taught by instrumental teachers or studied and acquired as a skill. Yet all musicians at some