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A Method of Analyzing Improvisations in Music Therapy

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Introduction

Music is the one ingredient that gives music therapy its unique potential and effect. Yet it is the most enigmatic and elusive ingredient to empirical scrutiny, whether quantitative or qualitative methods are used. This paper will extrapolate a method of analyzing improvisations from a completed research project (Lee, 1992) and other allied publications. This method can be adapted for both research and the working clinical situation.

The recent literature available on the analysis of improvisations in music therapy (Aigen, 1998; Ansdell, 1995; Arnason, 1998; Bruscia, 1987; Forinash & Gonzalez, 1989; Lee, 1996; Ruud, 1998) deals mainly with the exterior influences of the therapeutic process and the clinical implications therein. Few studies examine the musical building blocks of improvisation as a means to better understand the intricacies of the process. Is the gap therefore between music theory and clinical intent so broad that connections between the two might be deemed invalid? It is the hypothesis of this method that such connections are indeed imperative to the understanding of music therapy improvisation.

Ansdell (1997) makes a plea for broadening our horizons to include the rich history of musicology and emphasizes that the possible connections are perhaps more articulate than we may at first imagine. This attempt at crossing the ravine of our understanding will hopefully allow others to question the need for music therapists to know equally the musical and clinical process.

It is not the intent of this paper to claim that this method will be relevant for every clinical situation. Rather, I hope that this work might highlight the problems faced by music therapy researchers in finding a balance between empirical and epistemological in-

I would like to thank Dr. Kenneth Bruscia for not only suggesting a working model of analysis, but for spending time in helping me organize my thoughts and expression.

quiry. For it is, I believe, the balance between the two (quantitative and qualitative) that will provide the most fruitful answers to the ongoing enigmas of music therapy questioning. The ideas raised here therefore may be relevant to some and of no consequence to others. Findings and answers are only of value if they can be attested and debated within the bounds of other sapient ideas and questions.

My own research (Lee, 1992) was based on working with clients who were able to provide clear succinct feedback on the therapeutic process. It was this sense of collaborative inquiry that was at the heart of my research. This method can however be adapted for clients who are unable to be so involved in each stage, and who may be unable to describe their feelings about the improvisations. While the evaluations may in essence be more unbalanced, critical improvisations from sessions with clients who have learning disabilities are just as valid as improvisations from highly articulate clients.

Background to the Method

The method described here came from the final stages of my doctoral research (1992). I wanted to find a working approach to the analysis of improvisations; one that came directly from the research inquiry and philosophical motivation of my project. By distilling the essence of my analyses into a nine-stage method I found many clinical and musical minutia that were pertinent to my ongoing clinical work. These areas all deal with the crucial analytical balance between musicology and clinical rigor. The main hypothesis of my research focussed on the possible connections between the two. How could these seemingly separate disciplines be bridged, and what would it mean to attempt to see clinical and musical interpretation as allies? That the profession is at the brink of acknowledging such links means that in the future musical structures will hopefully be seen to be as important as data collection and empirical analysis.

Each music therapist's use of this method will depend on their clinical bias and experience. These analyses can be the basis of an in-depth investigation into an entire music therapy process (through multiple analyses), or conversely of one session within a specific part of the therapeutic process.

Each part is introduced with a praise of the stage under discussion. The highlighted examples are taken from one section of an improvisation as discussed in my doctoral research (Lee, 1992). All

passages shown in italics come from interpretations taken of the client, a musician, psychotherapist and music therapist. These four individuals listened to the improvisation and commented as part of my research methodology, gaining data from internal and external sources.

Background to the Client

Eddie referred himself to music therapy. When we first met he was HIV positive and asymptomatic. Our work has been extensively documented in "Music for Life" (Ansdell, 1995). The therapeutic process of our work formed a major part of my research and has been the basis for future work on music therapy in palliative care. Eddie died in 1995.

Eddie had no formal training in music and had a dislike of most Western music that took its theoretical base from rules. His musical inspiration came from a total freedom of artistic and creative expression. Eddie's diagnosis forced a complete re-evaluation of his life. Music therapy accompanied him through the last 4 years of his life, serving as a medium to challenge, support, and hold his musical and life experiences. Eddie's musical expression became a true transcendence of his journey through life and death. Eddie and I had 45 sessions over a period of 2 years.

Background to the Analyzed Session

The section of improvisation analyzed in this paper came from Session 21. The session consisted of three improvisations:

1. Percussion and piano.
2. Piano four hands (client, bass, therapist, treble).
3. Piano four hands (therapist, bass, client, treble).

Improvisation 3 is analyzed here.

It is important to state that in order to use this method effectively the music therapist must be prepared to spend time with the chosen improvisation. It is advisable therefore that the example be pertinent in terms of the therapeutic process as a whole. This can be achieved either in conjunction with the client or through the assessment of the therapist. There should be a sense of commitment to the improvisation; (a) that there are identifiable enigmas within the music that could help with the evaluation of the therapeutic

process and/or (b) the aesthetic qualities of the music warrant more in-depth investigation both musically and/or therapeutically.

Stage 1—Holistic Listening

Listen to the entire improvisation several times in order to obtain a sense of the whole. Alongside this try to identify those musical elements, properties, structures or processes that are the most significant to the fundamental character of the whole improvisation. Take general notes and listen on several different occasions.

In order to get a clear panorama of the improvisation it is suggested that the therapist listen to the musical example at least four times:

Listening 1—listen without preconceived idea or thought. Get a sense of the whole improvisation and make notes after the complete hearing.

> *"This improvisation falls into three major sections (A,B,A). Section one (A) is slow and structurally simple, section two (B) is fast and complex and section three (A) returns to the opening slow idea."*

Listening 2—start to listen for shapes and structures within the music. Try to stop the tape only once or twice to make any significant comments.

> *(2–7.50 min.) "This passage is musically bounded by the semitone which acts as an anchor in assimilating the ever-changing balance between the tautness of atonal key-centers and the consonant directness of C major. A clearer sense of opposing musical structures is becoming apparent. The duality of the semitone against C major is being developed at a more complex level than originally heard."*

Listening 3—describe all the significant musical elements you hear. Stop the tape as often as you need to make an inventory of the musical components. Transcribe as many of the main musical themes and/or motives as you are able (see Figure 1).

Listening 4—listen to the whole improvisation again without taking notes. This will give you a sense of the whole before you move on to the next stage.

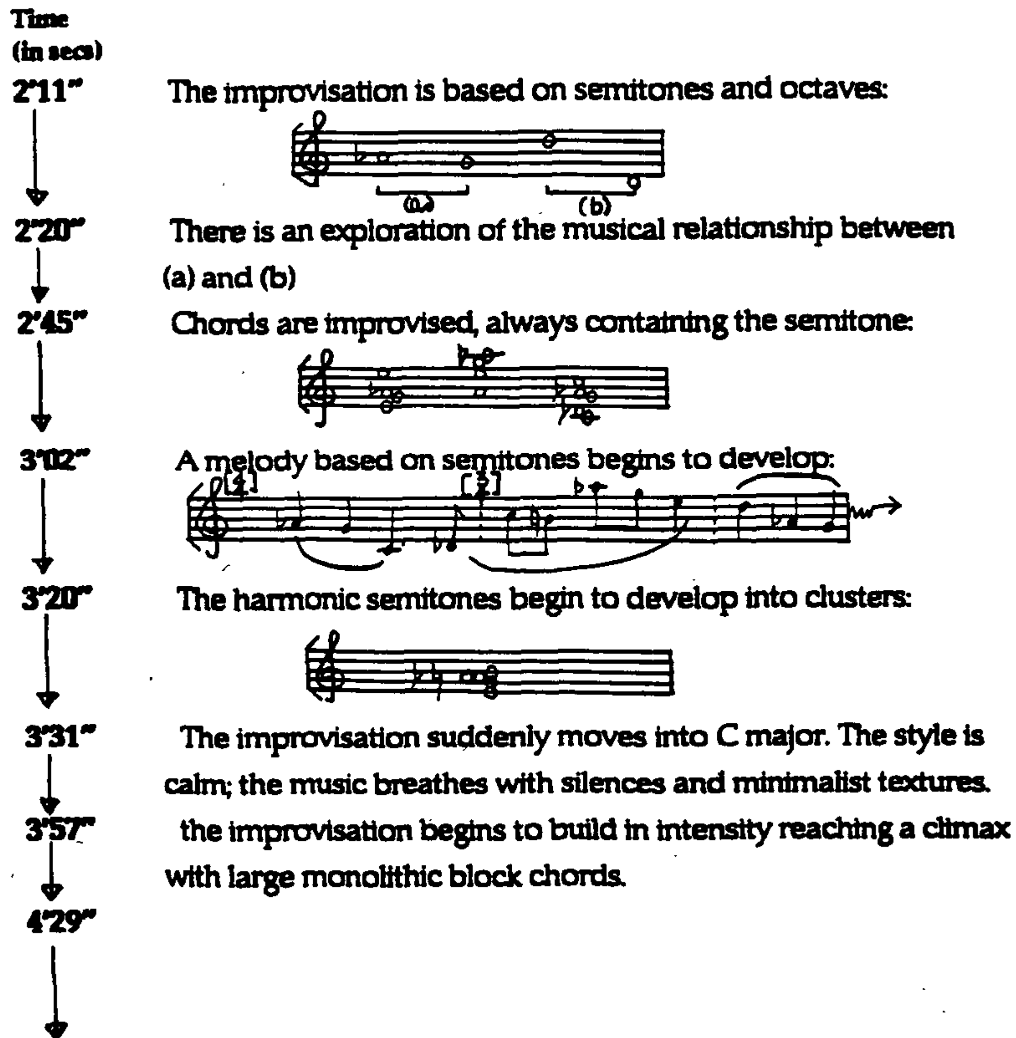

FIGURE 1.
Main musical themes and/or motives.

Stage 2—Reactions of Therapist to Music as Process

The therapist writes a narrative on how he/she perceives the musical and therapeutic experience. This may include: a) how the improvisation relates to the client's process in music therapy as well as b) what the therapist was feeling or thinking during or immediately after the improvisation.

This stage will help illuminate another layer of the improvisation; that of the therapist's process and reactions. The information can be used freely to collate more information (see Figure 2).

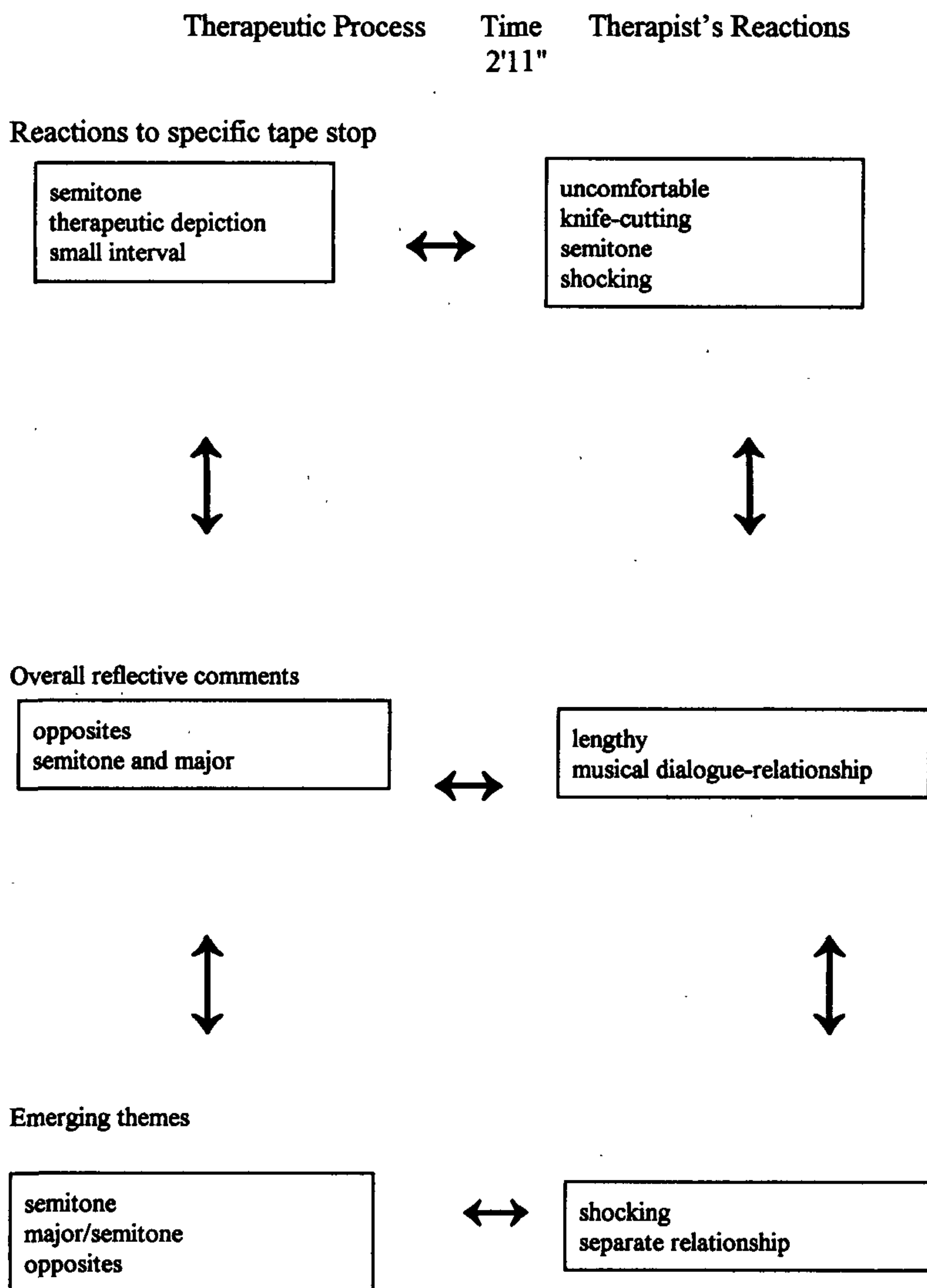

FIGURE 2.
Therapist's process and reactions.

Here you will see that I have organized information at three levels:

a) Reactions to specific tape stop—data collected at one time.
b) Overall reflective comments—data collected after a complete hearing.
c) Emerging themes—data collected from the main ideas expressed in (a) and (b). Each perspective can be isolated or considered collectively.

Stage 3—Client Listening

Play the taped improvisation for the client and ask them to comment. Stop the music each time the client speaks and make note of exactly where in the improvisation they were moved to react. Record the conversation and make a complete transcription.

"This section was beautiful . . . we were sharing intimate feelings for a long time . . . and it felt right—it expressed the other side of my emotional coin. On one hand I felt angry and annoyed. It made me realize that I had feelings of intimacy and pain which we expressed through a simpler style of playing . . . the rest of the improvisation was leading to this point . . . it works because of what has gone before."

It is important not to alter the transcription so as to make it grammatically correct. Let the sense of improvisation in words speak freely in the same way as the music. Use pauses, dots and dashes; be as creative in your transcription of words as you would be in your transcription of the music. Spend time considering and making notes on this often very rich material.

Note: for nonverbal clients omit Stage 3.

Stage 4—Consultant Listening

Play the taped improvisation for several experts in different fields (e.g., a musician, psychotherapist or music therapist). You should use whomever is the most relevant to your work. There is no rule about whom to select. Again make a note exactly where in the improvisation the consultant was moved to react or comment. Tape record and make a complete transcription of the conversation.

Musician—"This part of the improvisation is carefully graded and executed. The bass assumes an accompanying role to the treble's pentatonic melody . . . players respond in the tonal centers (C natural and D flat) . . .

there is freedom of melodic invention and in the fluidity of rhythmic direction and phrasing."

Psychotherapist—"The bottom register is still holding the top . . . it doesn't feel so isolated and separate. It's a part of the whole relationship and for me that's to do with the space that has been developed."

Music Therapist—"The treble is playing with simplicity that is saying much . . . the phrase endings are perfect . . . there is real listening. Both players are together all the time . . . the simplicity expresses another side of expression and the relationship contained therein. Whatever is being shared comes across as being acutely intense."

After you have collected the data from Stages 3 and 4, spend time considering all four listeners' comments and how they relate to the information gathered thus far.

Stage 5—Transcription into Notation

This stage depends on the limitations the music therapist has with regard to both time and technology. One should keep in mind that there are many different types of notation and the way one notates is not only a function of expediency but also one's conceptions (or perhaps bias) with regard to music. The notation can be as simple as a basic diagrammatic representation, through meticulous aural transcriptions and ultimately computerized delineations.

For the purposes of Stages 5 to 9, I will illustrate the method from the same musical example. I have depicted three levels to show different possible layers of transcription. Be as free and creative with the level of transcription that is applicable to your working situation and the questions you are asking. Allow your bias as a musician and therapist to influence how you attempt this stage.

Level 1—representation via computer. This notation was taken from a piano that was fitted with electronic sensors on every key, with MIDI ports to transmit the information to another MIDI-compatible instrument. The piano was linked via a MIDI cable to an Apple Macintosh computer, and was recorded using the Opcode 2.6 sequencer software. The original sequences were converted into standard MIDI files, transcribed via the Finale 2.0 software package (Lee 1995; see Figure 3).

Level 2—aural notation. Try and notate as accurately as possible the overall harmonic, melodic, and rhythmic parameters (see Figure 4).

FIGURE 3.
Representation via computer.

Level 3—diagrammatic representation. Be free and simple in your transcription. Use signs and simple musical constructs to highlight the musical shape of the improvisation. This form of transcription can be creative and fun!

Stage 6—Segmentation into Musical Components

Criteria for how the musical sections are to be identified must be established. Classifications of segmentation will allow the improvi-

sation to be divided into manageable components so that more in depth analyses can take place, e.g., changes in texture, formation of themes, changes in tonality.

By viewing Figures 3 and 4 you will see that I have divided the section of improvisation into three manageable components. These were dependent on musical phrasing and structure.

Stage 7—Verbal Description

Itemize the musical elements of each section as formulated in stage 6. Describe only those musical elements that are particularly

FIGURE 4.
Aural notation.

striking or substantial. The description must be concise and should therefore not include every musical element. Emphasis is on conciseness (see Figure 5).

Stage 7 is a catalogue of musical events. Be precise and clear about what you are describing. This should be an inventory of musical constructs.

Stage 8—In-Depth Analysis of Segments and Comparison of Data

Select a segment of the improvisation that received the strongest or most frequent reactions from the client and consultants. Con-

Client (C)
Therapist (T)

- (T) (C) 11:41 - 13:36 extended lyrical passage
- (C) improvises within the pentatonic based on D flat
  (T) fluctuates between D flat (11:46) and C (12:39)
- (C) initiates the opening with repeated single tones (E flat)
- at 11:56 extends this into a melodic theme - forms the basis for (C)
- (T) accompanies with chords, recapitulating the intervals stated at 4:43. 12:39
- (T) chord sequence opposed to the pentatonic playing of (C)

FIGURE 5.
Itemization of musical elements.

sider this segment in relation to the entire improvisation. Describe how it fits, including what is the same and different between this segment and the rest of the improvisation.

Analyze each segment in a comprehensive and in-depth manner. A variety of theoretical approaches may be relevant. Below are some of the analytical questions that arose from my research:

(a) Is there a harmonic cell?
(b) Are there tonal centers?
(c) Are there melodic motifs or characteristic intervals?
(d) Are there rhythmic motifs or cells?
(e) Is there a metric structure?
(f) What are the characteristic textures?

Compare the verbal data of the client and consultants with the musical analyses of the chosen segment. This should include the following:

(a) Finding those areas of agreement and contradiction in the verbal data.

(b) Linking the content of the verbal remarks to specific musical locations, structures, elements, etc.—explaining what in the music may have accounted for a particular remark.

(c) Reconciling contradictions between verbal and verbal, verbal and musical, client and consultant, and client and therapist.

Stage 8 is the culmination of your analysis. Compare the musical infrastructures with the verbal data from the client and consultants. It is important that the in-depth analyses be structured to fit your (and the clients) approach, the questions you are asking and the

nature of the material you are investigating. Creativity of thought and organization is of prime importance. Let the improvisation, the musical structure and the therapeutic position, dictate the direction of the analysis.

This analysis (see Figure 3) consists of a slow passage just prior to the final coda of the improvisation. This session contains the longest period of development and is the most tonally centered part of the improvisation.

Client and consultant data. All four listeners agree that this section of the improvisation is important. They all infer that there are layers of the music that are worthy of investigation. It is only the musician however who delves into the musical infrastructure recognizing the balance between the client's (D flat, pentatonic) and therapist's (C) tonal centers. The musician also recognizes thematic ideas from earlier in the improvisation.

Harmony. The harmonic content forms the basis of the musical expression. There is a duality of key centers (D flat [pentatonic] and C; see Figure 6).

All listeners agree that the pivot between the tonal centers is significant:

Client—"Much of this improvisation is atonal which makes this section appear even more tonal. I'm playing the black notes of the piano and you are playing something that isn't strictly in tune with that, yet it's a complementary key which when put together produces breathtaking harmonies. The power in the music lies in the fact that you did not play in the same key or mode as I did. I felt that you were with me but that you did not overcrowd my musical and therapeutic expression. The beneficial outcome for me came through a togetherness that was also intrinsically separate."

Musician —"The treble is in the Pentatonic. The bass improvises unrelated chords based around D flat, further responding with step-wise chords originating from C major (12 min. 39 sec.). This produces bitonality which is technically dissonant but which aurally produces consonance. The combination of D flat pentatonic and C major produces the backbone of the whole-tone scale. The music is thus reminiscent of Debussy."

Psychotherapist—"I find it difficult not to reflect on the harmonic content. The harmony and the chordal relationships to do with a sense of trust which is now implicit in the chordal structure and the therapeutic

FIGURE 6.
Harmonic content.

relationship. I hear two independent keys and yet what comes across is total integration."

Music Therapist—"The combination of different keys and harmonic ground, is a vital part of the music therapy process here. Both client and therapist are theoretically apart—from both a musical and relationship point of view. Yet the combination provides a unity that is subtle and beautiful. There is a sense of intense and intent listening."

From a subjective viewpoint, as therapist, it is important to consider how this harmonic balance evolved. The response to counterbalance the D flat pentatonic was a conscious choice. Therapeutically and musically I felt my role was to be alongside, yet not directly immersed in the client's musical expression. The C major base was therefore used to facilitate a foundation that was complementary, yet opposed, to the creativity of the client.

In subsection 3 (12 min. 39 sec.), the therapist improvises a series of ascending displaced major triads (C major, D major, E major) against the client's pentatonic melodic line. At subsection 4 (13 min.), a further idea is introduced; the therapist improvises a theme of parallel thirds that adds another strand/texture to the music.

How important are the intricate harmonic components in relationship to the therapeutic process? Could the outcome have been achieved through simpler means? And what does this analysis show in terms of a greater understanding and importance of harmonic thought in clinical improvisation?

Melody.

Client—"When I play a melody in the Pentatonic mode it's normally because I know more or less how it's going to sound. It meant at this point that I could improvise a melody freely because the tones themselves were in a set formula. At this point I needed this security." (see Figure 7).

This condensation shows the outer melodic lines of both players. The melodic development between parts are in the main in contrary motion. There is a balance of melodic invention both within the individual lines and the relationship between the two. An inner melodic line is introduced by the therapist (subsection 4—13 min.), which adds a trio sonata dimension to the musical dialogue.

The relationship of melodic contours show a finite balance between players. Through this analysis one can conclude that there is indeed "a sense of togetherness that is intrinsically separate." What does this refined and intricate balance within the therapeutic alliance tell us about the therapeutic process? The client suggests that he wanted a time to rest; in which to play melodic phrases that he would be able to articulate simply and clearly. Placing this within the context of the whole improvisation there was indeed a clear indication that the improvisation and thus the relationship needed time to be quieter and less confrontative. The dense and complex passages

FIGURE 7.
Outer melodic lines.

leading to this section were balanced against simpler more direct expressions. It was only at this point in the improvisation that this calmer more introvert expression became developed and critical.

Melodic rhythm. Two subsections will be analyzed highlighting two forms of melodic rhythmic fluidity that appeared to be of significance within the musical relationship. These rhythmic analyses come from a later section in the improvisation not shown in Figure 3.

FIGURE 8.
Rhythmic interplay: free.

The rhythmic freedom between therapist and client is either (a) free (see Figure 8) or (b) within suggested tempo boundaries (see Figure 9). The design consists of the client's single-line free rhythmic melody placed against the therapist's either (a) repeated-note patterns or (b) slow placed chords.

Melodic rhythmic fluidity. The melodic rhythm is notated freely; that is, no one group of note-lengths are strictly aligned with another. The rhythmic pulse of (a) and (b) is led by the therapist, the quaver pulse of the client decorating and punctuating the overall structure from (c) to (f). The rhythmic direction is developed by the client, with a slow static accompaniment that rarely coincides with the client's phrases; (b), (c) and (f) highlight a rhythmic melodic motive that gives a feeling of fluidity; triplets alongside two and four note groupings.

Melodic fluidity within suggested tempo boundaries. It is possible from this rhythmic transcription to propose time-signatures (see Figure 9). The client's stable melodic rhythm is in direct contrast to the static accompaniment of the therapist. The five rhythmic sets can be clearly seen in another format (see Figure 10).

The up-beats are balanced by either a triplet phrase or as in the case of (e) an extended group of quavers. The combination of triplets and two- and four-note groupings are essential in communicating the ongoing feeling of fluidity.

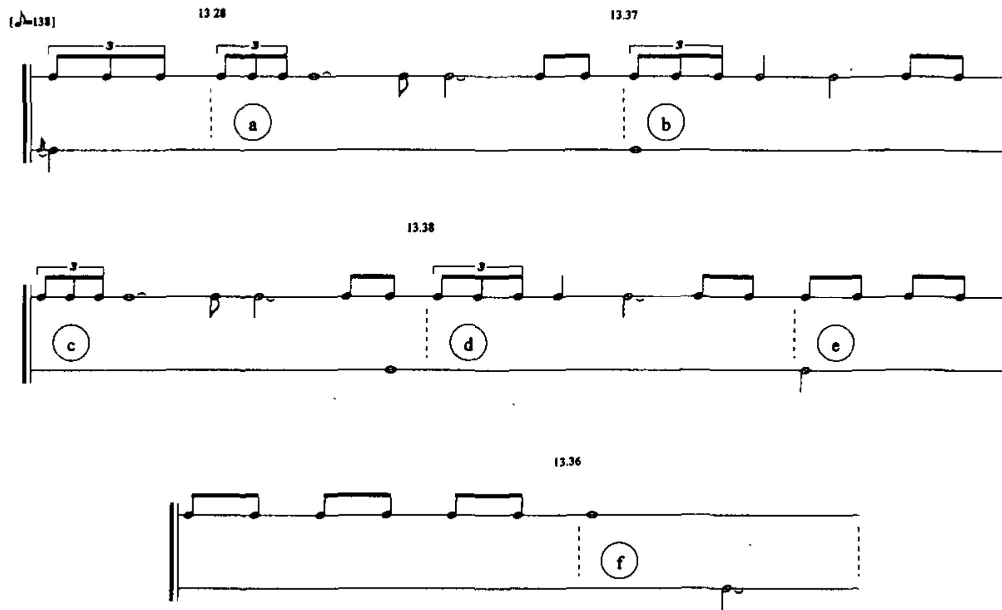

FIGURE 9.
Rhythmic interplay: tempo boundaries.

FIGURE 10.
Rhythmic sets.

Fluidity in the musical relationship is one of the hardest clinical tools to maintain, yet can have far-reaching consequences for the therapeutic process. Music and rhythm are fundamental allies and an ongoing rhythmic structure may be crucial for allowing the client and the musical relationship a sense of grounding. It is this grounding that can allow a mutuality that often heralds a sense of both the relationship and the musical dialogue as being established and ongoing. Freedom of rhythmic restraints, as demonstrated in this analysis, however, can be equally important in allowing the client a sense of freedom that is not available through a constant pulse.

The questions raised through this analysis deal with the often intricate dialogue between melody and rhythm. Melody speaks from rhythm and can without words become song-like, in a way that defies normal rhythmic consonance. Therefore it becomes almost impossible to actually notate this sense of freedom through standard notational procedures. So what is the relationship between melodic rhythm, the musical relationship and the therapeutic process as a whole? This part-analysis shows how important a client's free melodic phrase can be in dictating a sense of therapeutic freedom. How the therapist responds is crucial in providing either a clear rhythmic structure (moving the rhythmic direction) or an equally non-rhythmic impulse (meeting the rhythmic direction).

Stage 9—Synthesis

Integrate all of the above data and draw clinical conclusions pertinent to the information gathered.

The choice of part-analyses were deduced from the comments of the listeners, the musical structure and the questions of the research. In terms of music therapy, components were chosen that might help look beneath those elements that directly affect the music therapy process. The client, during this improvisation, improvised in two distinct styles. The first analysis—which has not been included here in this presentation—was fast and complex while the second was structurally simple and clear. The client's quiet introvert style of playing always came as a direct result of a more chaotic form of expression. This inner expression would normally be more tonal while his chaotic playing would nearly always be atonal. The musical content of the improvisation was important

for this client in discovering an expression necessary for his therapeutic growth. During music-making the relationship relied on two equal yet dependent voices rather than that of supporter (therapist) and supported (client). This analysis shows differing aspects of the client's disclosure in music. There is a duality of musical and therapeutic expression at both outer and inner levels. These levels were crucial in achieving a balance between therapeutic intent and musical outcome. From a musical viewpoint, the two styles of improvising highlight the importance of accommodating atonality and tonality within the same improvisational space and the potential effect these opposites have on the client's musical and therapeutic development.

Closing Comments

So what did I learn through the analysis in terms of the broader aspects of the client's growth in music therapy? Firstly that clarity of musical thought for the client, the therapist, and the relationship is essential in determining a preciseness of therapeutic direction. The client in this passage carefully placed each tone of his pentatonic melodic inventions in a way that portrayed an understanding of the connection between musical utterance and therapeutic outcome.

"I really felt as though we were sharing the most intimate feelings." He demanded that the voice of the therapist be equally delicate and skilled.

"I had feelings of intimacy and pain which we expressed through a simpler style of playing. I feel as though the rest of the improvisation was leading to this point."

With these comments in mind it is easy, I think, to understand the need for transparency. That feelings of intimacy and pain can be just as pertinently portrayed through simple structures as well as complex ones.

Smeijsters (1997) in his critique of this method suggests that this study takes "two different worlds, the personal and the musical independently and then compare(s) them to each other." This, in fact, is an accurate summation. What Smjesters fails to take into account however is that the broad ravine between the analysis of the musical and clinical will remain impenetrable if we do not attempt to cross it. The origin of this work does indeed attempt to connect two separate yet inherently connected worlds; the personal and the musical.

Perhaps most strikingly through this analysis and the research as a whole the delving into the Pandora's Box of musical and therapeutic treasures highlighted how little we understand about the dynamics of improvisation in music therapy. Through micro-analysis we can re-evaluate aspects of the whole. Not only does this kind of inquiry allow the music therapist and/or researcher the opportunity to expand their knowledge of listening, but perhaps more importantly it acknowledges the multi-layered components in therapeutic improvisation as being crucial for the assessment of music therapy as a whole.

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