Music Analysis of Clinical Improvisations with an Adolescent Who Has Communication Difficulties

A thesis presented in partial fulfillment of the requirements for the degree of

Master of Music Therapy

At the New Zealand School of Music

Wellington

New Zealand

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2010

Abstract

This qualitative study examines four improvisations taken from four phases of the researcher's clinical music therapy experience with an adolescent who had Autism Spectrum Disorder (ASD). Therapeutic changes and communicative qualities in the improvisations were traced through reviewing clinical notes and journal reflections, and using adapted versions of Bruscia's Improvisational Assessment Profiles (Autonomy and Variability profile) to provide insights to the description and interpretation of the music. The results suggest a progression in the client's awareness of the music therapy student (MTS) (who later became the researcher) an increased ability to interact through turn-taking, imitating, sharing and empathetic playing, as well as enhanced non-verbal and verbal skills. The analyses unfold the client and the music therapy student's journey in music therapy, highlighting the process of how two strangers became partners through improvisations.

Keywords: music therapy improvisation, adolescent, analysis, Autism Spectrum Disorder, communication, Improvisational Assessment Profiles (IAPs).

Acknowledgements

First of all, I would like to express my deepest gratitude to God, who made this whole journey possible and meaningful.

My gratitude also to my parents, Paul and Julie Wang, who made financial resources available for my music therapy training.

It has been a pleasure to work with my client (the participant of this study). Many thanks to the family who allowed me to analyse clinical improvisations for this research.

I would like to thank my supervisor Daphne Rickson for her helpful feedback and encouragement throughout the year.

I am also fortunate to share this research journey with my wonderful peers in Wellington and Christchurch – especially Pornpan and Sophie.

Last but not least, I am heartily thankful to my friends (Ruth Nunn, Raphael Lee, Vincent Ow-Yeong) and brothers and sisters from the Christchurch and Wellington Chinese Methodist Church for their earnest prayers and support during the period when I was unwell with Bells Palsy.

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Chapter 1: Introduction

This study was based on the clinical work the researcher undertaken in the second year of training as a music therapy student. One of the fundamental characteristics of qualitative research relates to the nature of personal involvement from the researcher, as Wheeler and Kenny (2005) explains, that the "qualitative researcher conducts the research largely through personal experience and engagement" with the topic, data and the participants. Indeed, this study relies on the researcher's understanding and interpretation of her clinical work with a client, therefore the writing will be presented in first person.

Background: Placement and Client

The facility was a special unit in a regular high school. The students there aged from 13 to 21 with physical, sensory, intellectual, social, and communication difficulties. The participant of this project, identified as Chris (not his real name), was a 14-year-old who was part of a class of ten pupils who had varying levels of physical, intellectual, sensory, communication needs. Although Chris was identified as being on the autism spectrum, it appeared that he did not have a formal diagnosis and no information was found in the school about his background.

It was Chris' first year in high school and according to staff members, in primary school years he attended mainstream classes without any special assistance. This could mean that Chris' particular learning and social needs had not been met in that environment, and could contribute to the sense of frustration he often projected. Chris' literacy skills were significantly delayed, as he was only beginning to master all the letters in the alphabets. He could recognise pictures but not many words, and had just

started learning phonetic sounds. However, Chris' receptive language seemed sufficient to cope with most classroom situations. Despite showing a lack of confidence, Chris could respond verbally when he chose to.

In the beginning of the year, Chris' Individual Education Programme (IEP) highlighted goals in four areas – physical, communication, life skills, and inclusion. Under communication, the two goals were, first, that he would greet peers and teachers from his classroom by name and second, that he would recall things about the activities he participated in that day. Chris attended weekly social skills groups with some classmates, facilitated with a speech and language therapist. Among his classmates, Chris predominantly presented as a very able student. He was artistic, enjoyed drawing - particularly the witty cartoon character: Spongebob Squarepants – and also enjoyed playing computer games. Within social interactions, Chris could sometimes be distracted, withdrawn, sensitive to people's comments and was easily offended.

During the course of a whole school year, Chris attended 27 individual sessions and 19 group sessions which were all facilitated by me. He had no previous experience of music therapy. The classroom used for sessions was usually quiet. It was spacious and a variety of instruments were laid out neatly. Instruments usually included keyboard, drums, xylophone, ukulele, melodica and a range of small percussions such as triangle, woodblock, bells, shakers and chimes.

In every session, Chris was encouraged to choose from the range of instruments, mostly for improvising activities, during which he seemed to be more engaged and expressive in interactions than during other structured activities. This was not surprising. Improvisation is an essential and powerful tool in music therapy, and during my clinical

placements, it had been valued for its versatility and spontaneity providing ways of achieving therapeutic changes in different settings.

My Learning about Improvisation in Different Settings

During the first year of music therapy I first experienced the usefulness and importance of improvisation in my clinical work with client groups who had physical and/or multiple disabilities. In that setting, as most clients were verbal, music was mostly improvised to facilitate interactions, foster relationships, encourage movement or enhance learning. In my second year, placed at the special unit of a high school, I encountered adolescents with ASD. This was an unfamiliar area and I found it challenging as well as intriguing. When working individually with students who have ASD, communication and socialisation through verbal interactions was difficult, so the role and nature of improvisations shifted. Previously, music had been mostly used *in* therapy; this means that music serves as a guide or bridge leading the client into therapeutic contact with the therapist, making the interpersonal relationship the primary therapeutic agent for change (Bruscia, 1987). However, when working with students with severe communication and socialisation challenges, it was more effective to use music *as* therapy – where improvised music becomes the primary stimulus for the clients' therapeutic change, influencing the their body, senses, feelings, thoughts, or behaviours directly (ibid). As trust began to grow between the students and me, clinical improvisations became a channel of non-verbal communications, and positive changes were observed in the clients - including increased self-awareness and awareness of me, increased verbal contribution, wider range of facial expression, the start of turn-taking, and increased openness to a wider range of experiences.

Research Questions

While there were some indications of desirable change, I wished to know more about the therapeutic process, therefore have developed the following research questions:

- What actually goes on in our improvisations that highlight therapeutic changes, and
- What specific qualities of communicativeness can be traced through the music?

Having previously been trained in the musicology field and been involved in a music analysis research, I was interested to apply my analysis skills to the process of gaining an understanding of communication-related disorders and to the dynamic ways music-making can enhance therapeutic changes. My assumption was that, one person's musical presentation can reveal aspects of his/her whole being, therefore, the client's individuality as well as the pathology can be traced through the improvisations (Bruscia, 1991). Music has long been used as an effective therapy for clients who have ASD and it is an important part of my training as a clinician to undergo and understand the therapeutic process from both the clinical and research perspectives.

In the next chapter, the literature review will cover, in more depth, background on ASD, the role of improvisation and music analysis in music therapy interventions with this client population.

Chapter 2: Literature Review

Autism Spectrum Disorder: Socialisation and Communication

ASD is characterised by a "triad of impairments" (Wing, 1988; Wing & Gould, 1978) which refers to communication, socialisation and imagination. The most apparent impairment is that of social interactions, which can be observed in early childhood. For example, children with ASD pay less attention and respond less to social stimuli, smiles, eye contact, turn-taking and spontaneity than children of normal development (Holck, 2004; Volkmar, Chawarska, & Klin, 2005). From infancy, caregivers may also observe delayed onset of babbling, unusual gestures, and diminished responsiveness, and that the child is unable to synchronise vocal patterns with them (Wikipedia, 2010a). Children with ASD seem to have particular difficulties with interpreting what others are thinking and feeling, to make sense of subtle social cues such as gestures and facial expressions, and sometimes to regulate their emotions (Shannon, 2009). As a result, they can appear to be indifferent to other people, prefer to be alone, resist attention and be passive to acts of affection (ibid).

Difficulties in establishing social interactions and relationships can be understood in four components – first sensory problems, second, their severe challenges with understanding the environment and other people's perspectives, thirdly, the repetitive behaviours driven by their need for routines and sameness, and the fourth relates to impaired communication skills.

I: Sensory problems. Most people with ASD also experience difficulties in sensory processing. When the sensory information they perceive is faulty, their experience of the world become confusing. Many are hyper-sensitive to certain sensory

stimuli which they may find distressing, such as particular volume or pitch of sounds, the touch of particular textures and particular tastes or smells. At the same time, they may also be hypo-sensitive to other sensory stimuli, resulting in behaviours like looking intensely at lights and patterns, listening to certain sounds and vibrations close to the ear, not reacting to pain, and enjoying certain strong smells and tastes (Hull Learning Serivces, 2004).

II: Understanding the surroundings. It seems that the greatest underlying difficulty for individuals with ASD is that they can be severely challenged to make sense of their surrounding environment (Brown, 1994). Reality for a person with ASD may be a "confusing interacting mass of events, places, sounds and sights… with no clear boundaries, order or meaning to anything" (ibid, p. 15). Research proposes various explanations for their inability to make sense of social relationships and communication. There is evidence of autism having an organic or genetic basis (Flintoft, 2009; Gupta & State, 2007). Some argue that social impairments are due to cognitive or affective deficits (Bauman & Kemper, 1985; Frith, 1991; Hobson, 1989; Pennington, 1991; Rutter & Scholoper, 1987; Wigram, 2000b). Baron-Cohen (1988; 1985) suggests that autistic children cannot conceptualise that others' thoughts may be different from their own – an ability called the "theory of mind" – making social interchanges hard to understand and therefore to participate in. In more recent research Baron-Cohen et al. (2000; 2005) explore neurological explanation to autism by identifying the important role of amygdala in primate social behaviour and the abnormal activity in amygdala of people wth autism when engaging in this social behaviour.

III: Repetitive behaviour. In coping with a seemingly overwhelming and unpredictable environment, individuals with ASD often engage in repetitive behaviours and/or rigid routines to find a sense of order and stability. Repetitive behaviour can also take the form of persistent, intense preoccupation about a certain thing or interest. These types of behaviour are categorised under the impairment of social imagination, which is marked by impaired flexible thinking, coherence and executive function (Shannon, 2009). It means individuals may have difficulty with imaginative and symbolic play, problem-solving, understanding abstract concepts, generalising learning to new situations, widening their interests from their narrow obsessions and they may become reliant on the same routines in their everyday functioning (ibid).

IV: Communication difficulties. Receptive language refers to the listening and understanding of what is communicated by others. Comprehension of verbal communication can be hard for people with ASD, and they may seem disinterested and unresponsive, show sensory defensiveness to auditory stimulation, find vocabulary, grammar, and sarcasm too confusing and take much longer to process what is heard and to formulate a response (ibid). The lack of motivation to communicate is often underlined by a lack of understanding about communication, as a person with ASD shared:

> No one guessed how much I understood, because I couldn't say what I know. And no one guessed the critical thing I *didn't* know, the one missing connection that so much else depended on: I didn't communicate by talking, not because I was incapable of learning to use language, but because I simply didn't know that that was what talking was for. Learning *how* to talk follows *why* to talk – and until I

> learned that words have meanings, there was no reason to go to the trouble of learning to pronounce them as sounds. (Sinclair, 1992, p. 296).

Long before children learn to use language to communicate, they develop preverbal and non-verbal communicative behaviours that underlie all later language acquisition (Bogdashina, 2005). Babies with autism have problems with the development of pre-verbal communication, such as mutual gazing, joint attention and turn-interplay (ibid). Mutual gaze is the most useful way of signaling joint attention, which involves looking and listening together or sharing in the same moment or event with someone, with mutual enjoyment and meaning (Hull Learning Services, 2004). Gaze is also used to control the flow of conversation or turn-taking. However, there tends to be a reduction in mutual gaze between people with ASD and the people they interact with, making joint attention and turn-taking difficult to participate. Beside poor eye contact and turn-taking skills, they may also experience difficulties in understanding and using facial expression, spontaneous gestures and body postures, prosodic features and in initiating interactions (ibid).

An estimation of one third (Bryson, 1996) to half (Lord & Paul, 1997) of people with autism never develop any functional speech and are functionally mute (Bogdashina, 2005). The causes of “autistic muteness” are often multifaceted. They may be affected by motor problems, anxiety or stress (ibid). When speech is impaired, they can use language in unusual ways - some speak only single words while others repeat the same phrase or develop echolalia, i.e. repeating what they hear (Shannon, 2009). It can also be hard to understand what people with ASD are saying - their body language, facial expressions, movements and gestures rarely match what they are saying, their tone of voice can fail to

reflect their feelings, and a high-pitched, sing-song, or flat, robot-like voice is common (ibid). The diagnostic characteristics of qualitative impairments in communication used in ICD-10 (World Health Organization, 1992) and DSM-IV (American Psychiatric Association, 1994) based on the "triad of impairments", are summed up in the following:

- Delay in, or total lack of, the development of spoken language, not accompanied by attempt to compensate through alternative modes of communication, due to lack of appreciation of the social uses of communication
- Lack of understanding that language is a tool for communication
- Lack of reciprocity in conversational interchange
- Idiosyncratic language (echolalia, literal use of language, neologism, etc)
- Lack of use and understanding of gestures, miming, facial expression, vocal intonation, etc. as tools of conveying information
- Impairment in make-believe or social imitative play
- Inadequate emotional reaction to verbal and non-verbal approaches by others

Music Therapy and Autism Spectrum Disorder

Over the years, music therapists and researchers have strived to meet the challenge of providing an evidence-based practice. A review of published articles reveals that many authors have reported goals and interventions utilised in music therapy treatment programmes with adults and children with ASD (Edgerton, 1994; Gold & Wigram, 2006; Gold, Wigram, & Elefant, 2006; Mahlberg, 1973; Nelson, Anderson, & Gonzalez, 1984; Saperston, 1973; Snell, 1996; Staum & Flowers, 1984; Stevens & Clark, 1969; Thaut, 1999; Toigo, 1992). Studies have shown positive results, supporting music therapy as an effective intervention for this client population.

Recent studies include Whipple's (2004) meta-analysis of quantitative studies comparing music to no-music conditions during the treatment of children and adolescents with autism. These studies measure a range of social behaviour, communication, and cognitive skills, and the meta-analysis suggests that all use of music treatment has a relatively high effect with children and adolescents who have ASD - regardless of different treatment design and methodology, age of subject, music used, source of research, or profession of the music provider (ibid). However, half of the studies were carried out by professionals from other fields, such as education, psychology and occupational therapy - if all of the studies were conducted by music therapists, perhaps the outcome would be more significant due to the more effective facilitation of musical intervention and the more specialised understanding of musical behaviours music therapists can offer. Kaplan & Steele (2005) also undertook an analysis of music therapy programme investigating music therapy interventions, session types, formats, goals and level of difficulties for 40 clients with ASD over a two-year period. The therapeutic goal most frequently selected was in the area of language and communication. Their findings show that one hundred percent of participants reached their initial objectives in the intended goal areas within one year or less, regardless of session type, level of difficulty or goal area.

Music therapy has also been used as a diagnostic and assessment tool in ASD. A significant strength in music therapy assessment is in the area of social engagement and nonverbal communication, particularly through interactive music-making or improvisations (Wigram, 2000b). Children with ASD demonstrate their pathology in their music, so the music therapist can identify particular recurring patterns in the way some

autistic children use musical instruments and create musical sounds, which separate them from children with other disabilities (Wigram, 1999).

Role of improvisation. While improvisation allows freedom to identify the client's areas of difficulty as well as revealing abilities and potentials in assessment work (Wigram, 2000b), it is also a crucial part of clinical practice. The view that improvised music is the primary medium for creating musical dialogue with a client has formed the basis for many music therapy approaches and traditions (Aigen, 2005; Alvin, 1978; Bruscia, 1987, 1991; Nordoff & Robbins, 1977; Pavlicevic, 1995; Priestley, 1994; Wigram, 2004). Methods which employ improvising as a primary therapeutic experience can be referred to as improvisational music therapy (Bruscia, 1987, p. 5).

Improvisational music therapy overall is deeply rooted in theoretical notions that identify strong links between the quality of one's musical presentation and internal state of being. Alvin believes that "music is a creation of man, and therefore man can see himself in the music he creates" (Wigram, Pedersen, & Bonde, 2002, p. 131) and in Nordoff-Robbins' creative music therapy, the client's responses are believed to come from both the innate "music child" and the "condition child" which refers to the disabling conditions that encase the client (Bruscia, 1991). Brown (1994) explains that music relates to our very own existence and being for we ourselves encompass rhythm, melody, harmony, dynamic and form. If an aspect of a person's being is distorted or damaged as a result of pathology, it will have an effect on all other aspects of his/her being – physically, cognitively, psychologically, emotionally, and also musically. Since each aspect of our being is connected to the others, by working to:

> free the person's musical limitations, resistances and defences, and by building on the strengths of his or her musical elements, components and structures within an improvisational relationship, we are simultaneously working towards healing the other aspects of her or his cognitive, physical, neurological and emotional being (ibid, p. 18).

As Wigram (1999) points out, the most common pathological element presented in the music of people with ASD relates to the state of rigidness – such as unchanging routines, repetitive patterns and sequencing. Disabilities in social interaction and communication for this client population can typically emerge in improvisations through difficulties with turn-taking, sharing, anticipating, reflecting, copying and empathetic playing (ibid). Their lack of interest and awareness also affect their ability to respond to or share changes in tempo, rhythm, timbre, intensity and other elements of a shared musical engagement (ibid). Results from numerous studies suggest that improvisational music therapy is effective in improving communicative behaviours in children with ASD (Alvin & Warwick, 1992; American Music Therapy Association, 2008; Edgerton, 1994; Hollander & Juhrs, 1974; Nordoff & Robbins, 1964, 1968; Saperston, 1973; Wigram, 2002) in areas including enhancing social closeness through shared experience (Perry, 2003), facilitating joint attention behaviours and non-verbal social communication skills (Kim, Wigram, & Gold, 2008), improving preverbal communication skills (Shaw, 2006), making gains in communicativeness rhythmically and vocally (Pavlicevic, 1990), regulating arousal in communication development (Perry, 1999) and supporting language development (Buday, 1995; Colwell, 1994; Register, 2001; Standley & Hughes, 1996).

Role of music analysis. Although there has been much literature on the therapeutic process and efficacy of improvisational music therapy with the ASD population, on the whole, there is a shortage of existing in-depth investigation of the music itself or the musical interactions or processes between client and therapist, as transcriptions of music do not appear very often in the literature (Bonde, 2005). A number of studies focus on developing or examining methods or approaches for the analysis of improvisations (Arnason, 2002; Bruscia, 2001; Keith, 2005; Lee, 2000), others on the interpretation and investigation of meaning, and musical experiences in the therapeutic process (Amir, 1992; Gardstrom, 2004; Maitland, 2007; Pavlicevic, 1990; Shaw, 2006). In recent music-centred studies, Shaw (2006) investigates the ways in which communication skills were developed through triadic improvisations with a child with Down syndrome and autistic tendencies, and Maitland (2007) examines the musical interactions and therapeutic process of a child with ASD through video analyses. In this qualitative research, Maitland (2007) selects three clinical excerpts which illustrate the four acts of musical communication she identifies – the client's ability or willingness to match the MTS's pulse, to imitate the MTS's music, to reciprocate responses towards the MTS and to offer new ideas. While these criteria provide clarity to what Maitland looks for in each excerpt, they could also limit the wider range and variety of communicative behaviours that occur in improvisations. Overall, Maitland's study is valuable in the music therapy literature on understanding therapeutic processes through the analysis of clinical improvisations; it offers detailed descriptions about the music, the sessions they were taken from, her feelings and interpretation of the client's therapeutic progress, and

the musical scores show much creativity illustrating the client's eye contact, body and facial language.

Methods of music analysis. In musicology, much analysis work has focused on demonstrating the organic unity of classical compositions, examining musical aspects such as form, motives, harmony, tonality, harmonic rhythm and instrumentation (Randel, 1999). Improvisations in music therapy, however, are different, and analyses often focus on the music's referential relationships with the therapist and the client. Music-centred music therapy research is defined as "any method within music therapy in which researchers gather data concerning the relationship between music, client experiences and behaviour" (Bonde, 2005, p. 489).

When analysing improvisations in music therapy, many have based their principles proposed by Ferrara, a music theorist, who presented his method in *Phenomenology as a Tool for Music Analysis* (1984). His method incorporated phenomenological description, formal analysis and hermeneutic interpretation by using the following steps: (a) open listening, (b) syntactical level, (c) semantic level, (d) ontological level, and (e) final open listening, followed by (f) a meta-critique (Bonde, 2005, p. 506). Variations and developments of Ferrara's model have been made by many researchers while still referring explicitly to Ferrara's original contribution (Arnason, 2002; Bonde & Pedersen, 2001; Grocke, 1999; Kasayka, 1991; Ruud, 1998; Trondalen, 2003).

Forinash and Gonzalez (1989) developed Ferrara's procedure for analysing the experience of music therapy focusing on improvisation. Their approach includes a seven-step procedure for clinically based research:

1. Compile data on the client's background (psychosocial history);
2. Describe the session (transcription from audiotape and log);
3. Study the syntax (analyse the musical elements);
4. Analyse sound (describe the qualities of the sounds);
5. Analyse semantics (describe the referential meaning of session);
6. Use ontology (become aware of the client's life world);
7. Do a metacritical evaluation (review the data collected in the previous steps) (Bonde, 2005, p. 506).

Arnason (2002) developed an eclectic approach for analyzing improvisations that involves the examination of different levels of musical meaning through a series of reflections or listenings:

1. Open listening,
2. Listening to the musical parameters and their combinations, focusing on the client's way of playing,
3. Description of thoughts and feelings of the listener,
4. Imagery and metaphors elicited by the music,
5. Becoming aware of the client's life world and eternal influences on his/her musical experiences,
6. Final open listening (synthesis) (Bonde, 2005, p. 508).

In qualitative music-centred research, four important properties or levels of experience can be examined – music as a sound phenomenon (on a physiological level), structural phenomenon (as a language of its own), semantic phenomenon (for referential/symbolic meaning) and pragmatic phenomenon (as interpersonal

communication) (Ruud, 2001). Researching music usually addresses one or more of these properties and the semantic and pragmatic phenomenon are of particular importance when analysing the interpersonal aspect of improvised music with ASD clients. One of the most widely used analytical tools that are relevant for this focus is Bruscia's *Improvisation Assessment Profiles* (IAPs) (Bruscia, 1987).

The IAPs, considered one of the most systematic and elaborated music assessment procedures, have been used and discussed frequently in music therapy teaching, research and practice over the last 20 years (Wosch, 2007). Although the IAPs were originally developed for assessment work by Bruscia, researchers have found them useful when adapting to other practical applications in both quantitative and qualitative analysis (Wosch & Wigram, 2007). Two from the six profiles – the variability and autonomy profile – have been identified and adapted for clinical and research use when working with clients who have communication disorders; it is particularly prominent in the work of Wigram (2007).

The variability profile relates to the sequential aspect of an improvisation. The scales within the profile - rigid, stable, variable, contrasting and random - provide a means of analysing each musical element with regard to sequences in figures and grounds, and temporal part-whole relationships that emerge as the improvisation progresses (Bruscia, 1987). This profile describes "the extent to which components of each musical elements are maintained, repeated, varied, developed, changed and contrasted through time" (ibid, p. 427). It can be used to analyse sequences within a solo, duet or group improvisation. In a duet, it can describe the improvisers' intermusical and interpersonal relationships. The variability profile can illustrate the client's capacity for creativity or

evidence of his/her rigid or repetitive way of playing, which might support a diagnosis on the autistic continuum" (Wigram, 2007, p. 215).

The autonomy profile concerns the role relationships the client forms when improvising with a partner. It exclusively focuses on intermusical or interpersonal relationships by providing a means of "analysing role relationships within each musical element in terms of: how often the client takes leader versus follower roles, how these roles are manifested musically, and the conditions under which these roles are taken, maintained, and relinquished" (Bruscia, 1987, p. 444). The role continuum with five levels of leadership features: dependent, follower, partner, leader and resister. This profile reveals awareness of self and other, the need for maintaining boundaries between self and other and also closely links with the issue of control over both oneself and other. The autonomy profile highlights a client's readiness to work together with a therapist in turn-taking, sharing and acting as a partner (Wigram, 2007).

Wigram has developed an adapted version of Bruscia's original model using both the variability and autonomy profile for diagnostic assessment to differentiate between children who have autism, Asperger Syndrome, other variants of pervasive developmental disorders and communication disorder (Wigram, 1999, 2000a, 2000b, 2002, 2007). Wigram describes his approach as functional and reductionist for therapists' who need to "make a short, focused assessment of some specific aspect of musical improvisation relevant to a specific case (p. 213, 2007). While his step-by-step instructions is reasonably easy to follow, Wigram's method does not allow in-depth investigation of the music, nor is his system of noting results able to reflect characteristics of the music visually. In this aspect, Wosch's modification of the IAPs is

more useful for the purpose of analytical research on improvisations. Wosch employs only the autonomy profile in microanalysis of the processes of interactions in clinical improvisation and his approach follows these five steps in the analysis process:

1. Audio or video recording of the clinical improvisation
2. Transfer of the audio recording onto computer using SoundEdit or other programme)
3. Production of a score of the clinical improvisation
4. Microanalysis of the clinical improvisation using IAP-Autonomy in tabular form and written description
5. Production of a diagram that displays all the important interpersonal transitions during the improvisation (Wosch, 2007, p. 243).

Analysis methods and processes that are relevant to this research are found in *Microanalysis in Music Therapy: Methods, Techniques and Applications for Clinicians, Researchers, Educators and Students* by Wigram and Wosch (2007). It features the uses of traditional music notation (Backer & Wigram, 2007), modern symbols, computer-assisted images (Erkkila, 2007), graphs (Wosch, 2007) and tables (Pavlicevic, 2007; Wigram, 2007) which are common in analysis of improvised music, to suit specific analytical purpose of each particular study.

In improvisations, the therapist's role and approach differ when using music *as* therapy, as opposed to having music *in* therapy. Bruscia (1987) explains that under the following conditions, it is appropriate to use music *as* therapy:

- When the client is inaccessible to verbal intervention;
- When the client is not prepared or developmentally ready for verbal insight;

- When the client needs the context or pretext of music to interact, communicate, or relate to another person; or
- When the client can achieve therapeutic growth directly through the music, and does not need to verbally work through a personal relationship with the therapist (p. 503).

As these mentioned conditions are common for people with ASD, the therapist can help the client relate to music, taking the role of a facilitator, or a "bridge leading the client into therapeutic contact with the music" (ibid, p. 9). Therefore, when music is used *as* therapy, the therapist is likely to "take a more active improvisatory role" (ibid). A variety of clinical techniques can be used by the therapist during improvisations to engage and/or assist client towards desirable changes of response. Bruscia lists and describes 64 techniques that are commonly used in improvisational music therapy, and those can also be helpful when identifying and describing musical behaviours in the therapist's playing during musical interactions – some of these techniques will be highlighted in the last chapter, the discussion on findings.

In summary, a considerable proportion of the existing literature focuses on the music therapy methods and treatment outcome of working with the ASD population, establishing music therapy, overall, as an effective intervention. Due to the particular needs and difficulties in communication and socialization, improvisational approaches and techniques play an indispensable role in supporting people with ASD towards therapeutic changes. While much has been written on the theoretical foundations and the versatility of improvisations, there seems to be a need for much more in-depth analysis of the raw, musical data to gain detailed insight and understanding to the therapeutic process

for both the client and the therapist. The existing analytical theories and methods from musicology as well as music therapy literature offer a variety of structures to be considered and adapted, and in the next chapter, procedures and steps are constructed for the analysis of the four improvisations.

Chapter 3: Methodology

In the quest to understand how therapeutic changes such as communicative qualities are captured within musical interactions, this qualitative study investigates existing clinical improvisation data, recorded during my regular individual sessions with Chris.

Research Design

This is a music-centred case study research which uses a qualitative method. When reviewing "Approaches to Researching Music", Bonde points out the scarcity and need for music-centred research by saying: "Surprisingly few research studies in music therapy include in-depth investigations of the music itself or the musical interactions or processes between therapist and clients" and that transcriptions of music are not often found in the literature (Bonde, 2005, p. 490). The music analyses in this project, therefore, can be a valuable contribution to the existing music therapy literature that studies the relationship between music and client experiences and behaviour.

By examining musical examples and the clients' therapeutic process from my clinical experience, this study also fits into the descriptions of a case study research design. A case can refer to an event, experience, material or person (Bruscia, 1995), and is said to have the following features (Smeijsters and Aasgaard, 2005, pp. 440-441):

- Specific and particular, not a sample from a population and not an aggregation across cases,
- Complex in its functioning, with working parts (such as a self),
- A bound system, differentiated from the environment (such as time or space),
- Real-life grounded, related to contemporary events.

The essence and significance of case studies are emphasized by Aldridge (2005), who published the book *Case Study Designs in Music Therapy*:

> We need an approach to music therapy research that stays close to the practice of the individual clinician; that is, the musician as therapist. Each therapeutic situation is seemingly unique. Yet we compare our cases and share our knowledge with each other….it is the very context-related feature of case studies that make the approach important for music therapy. Case studies relate what is being studied to real life situations and allow us to use a multiplicity of variables (pp. 10-11)

Inclusion Criteria

This study involves the secondary use of existing data. That is, clinical data has been revisited after therapy closed, and analysed for this study. Since Chris did not participate in the research process, and only the use of his clinical data were involved, he therefore can be described as an indirect participant.

The selection of the participant was purposive, which is a method of sampling that grants the researcher freedom to choose the participant(s) from a population to serve a very specific need or purpose (Patton, 1990). It is common in qualitative research, particularly case studies, to employ this non-random method, in order to present a research that demonstrates rich and interesting information (Patton, 1990). For this research, Chris was selected to be the indirect participant for he had no prior one-to-one music therapy experience before my work with him, he was responsive to music particularly through interactive instrumental playing and had shown clear progress in communicative and social engagement with me through improvisations. Compared to the

improvised music by other potential participants, I found the musical interactions between Chris and me the most consistent, interesting, and suitable for an analytical study.

Data Collection

Research data came from two sources. Audio recordings of improvisations from individual music therapy sessions were the primary source. They were recordings of regular sessions kept for clinical purposes. Clinical records were not subject to critical analysis but were viewed broadly after each clinical session and interesting events are noted for the development of session plans. The other source of data was my clinical notes and reflective journal, written about the session or particular issues in the therapeutic process.

"On a theoretical level, it must be taken into account that the score, despite all ethnological considerations, is naturally influenced by the score-writer's own subjectivity" Wigram points out when referring to the analysis of Autonomy using the adapted version of IAPs (Wigram & Wosch, 2007, p. 247). The realistic goal for me as a researcher was to strive for consistency rather than objectivity when working without the input of a music therapist participant.

Data Selection

Considerable length of time was spent examining the existing data and developing suitable selection criteria before determining my analysis procedure. The following section reflects my process of working and provides a broad context for my clinical practice.

Bruscia (1998) identifies seven variations of improvisatory experiences in music therapy. During the yearlong work with Chris four main variations were predominant.

Figure 1.1

Four of Bruscia's Variations of Improvisatory Experience (1998, p. 117)

	Variation	Description
1	Instrumental Non-referential	The client extemporizes on a musical instrument without reference to anything other than the sounds of music. The client improvises music for its own sake, without trying to make it represent or describe anything non-musical.
2	Instrumental Referential	The client extemporizes on a musical instrument to portray in sound something non-musical (e.g., a feeling, idea, title, image, person, event, experience, etc.).
3	Song Improvisation	The client extemporizes lyrics, melody, and/or accompaniment to a song.
4	Vocal Non-referential Improvisation	The client extemporizes a vocal piece without words or images.

A variety of activities were facilitated that involved the mentioned variants of improvisatory experiences. There were five activities that were most frequently used with Chris throughout the therapeutic process, as listed in the next table.

Figure 1.2

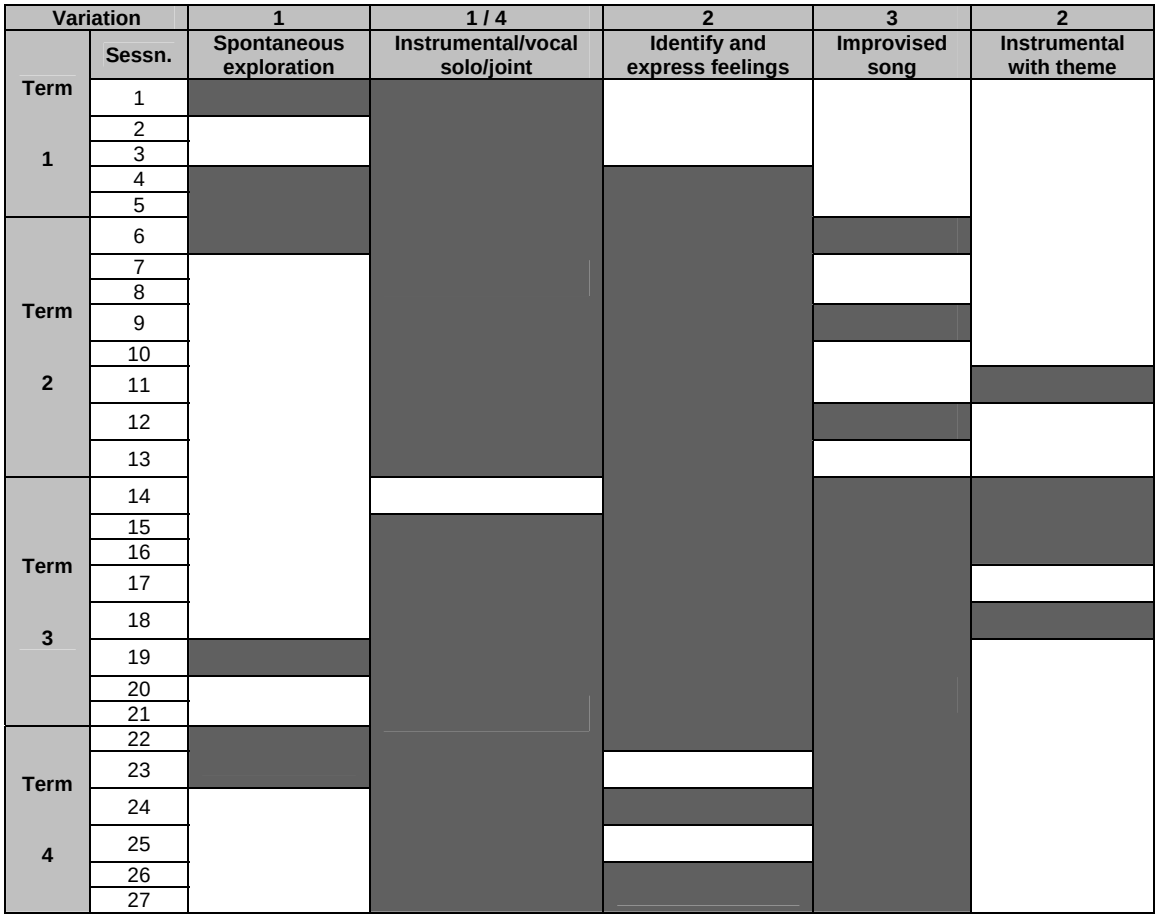
Description of Improvisatory Activities Chris Participated

	Activity	Variation	Description
1	Spontaneous exploration	1	Trying new instruments and/or new ways of playing and making sounds with sustained attention without structure
2	Instrumental/vocal solo/joint improvisation	1 + 4	Chris and I chose instrument(s) or vocal sounds to engage in free musical interactions until reaching an agreed ending. Chris could also choose to play by himself.
3	Identify and express feelings	2	Chris and I individually communicated our mood by picking a visual card with facial expressions that represented their feelings, and then played on a chosen instrument improvising the relevant feeling. It was often facilitated as a game where we guessed from 3 different cards which was the correct feeling intended by the player.
4	Improvised song	3	Chris and I worked as partners. While I sang a greeting/parting song and accompanying herself on the keyboard/guitar, Chris played an instrument chosen by himself or offered by me. Sometimes pre-composed songs were adapted.
5	Instrumental with theme	2	Chris chose from pictures of Spongebob and fellow cartoon characters to relate to in the playing. Each picture showed Spongebob in different situations (e.g. sick, angry, adventurous). Chris and I each choose an instrument to portray the picture in joint improvisation.

Figure 1.3 provides an overview of the mentioned improvisatory activities that occurred in the course of 27 individual sessions. The boxes filled by dark shade represent the occurrence of the activity I facilitated.

Figure 1.3

Overview of Improvisatory Activities throughout Chris' Therapy



Research data were selected for analysis based on three main criteria:

1. The selection features at least two different variants of improvisatory experience (as defined by Bruscia, 1998),
2. Improvisations are taken from various stages of therapy, and
3. Data must be considered (by me) as a meaningful or significant in representing Chris' process in music therapy.

These criteria were intended to present a reasonable variety of musical experiences between Chris and me, and by using data spread across the therapeutic

process it may be possible to observe changes in the communicative qualities and the therapeutic relationship. While the selected data include some improvisations that were perhaps most successful in terms of establishing communication and socialisation between Chris and me, it was not always the case.

Amir (1992) explores in depth the topic of identifying meaningful moments in music therapy, and discusses 15 elements that occurred in the music therapy experiences of four clients and four therapists. These elements, highlighting intrapersonal or interpersonal connections between the client and therapist include: moments of awareness, insight, acceptance, freedom, wholeness, completion, accomplishment, intimacy with self, inner transformation, physical closeness, musical intimacy, close contact, as well as emotions of joy, anger, fear and pain. Meaningful moments, by nature, are determined from a rather personal perception and perspective. Similarly, the criteria for identifying those moments in my improvisations with Chris were based on my own personal reactions and responses in the therapeutic process. Basically, moments in clinical improvisations that were memorable (details of interactions could be clearly recalled), and particularly affected my music therapy experience (whether triggering positive or negative feelings) were considered as significant. Amir (ibid, p. 181) found that “all of the therapists stated that these [meaningful] moments contributed to a better understanding of their work, to a better understanding of themselves as human beings, and to their own growth”, the moments meaningful to me were essentially defined by their contribution to my personal understanding and growth as a person and as a music therapist.

Four improvisations were chosen in accordance with the three mentioned criteria and the length of each was under two minutes.

Figure 1.4

Length of the Four Improvisations

Extract 1	Extract 2	Extract 3	Extract 4
1'59"	1'33"	1'02"	0'38"

One improvisation from each of the four school terms was selected, as highlighted below by the darkened boxes.

Figure 1.5

Overview of Selected Improvisations from One School Year

1st Term					2nd Term							
1	2	3	4	5	6	7	8	9	10	11	12	13

3rd Term								4th Term					
14	15	16	17	18	19	20	21	22	23	24	25	26	27

The selection featured two variants of improvisatory experience. The most common were joint instrumental improvisations that were non-referential in nature, involving a range of instruments, as seen below.

Figure 1.6

Use of Instruments within the Four Improvisations

No.	Sessn.	Instrumentation	Variant of Improvisation
1	3	Xylophone + keyboard	1: instrumental non-referential
2	8	Tongue drum + djembe	1: instrumental non-referential
3	19	Keyboard + melodica + voice	3: Song improvisation
4	25	Cymbal + Cabassa	1: Instrumental non-referential

The first improvisation was chosen, because it showed the beginning of the therapeutic relationship, where connections and trust were still to be established. The second improvisation marked a musical breakthrough as Chris developed awareness towards me and became interested in interactions. The fourth improvisation was an example of a harmonious partnership during the making of a goodbye song. During the closure process, Chris began to withdraw at the end of therapy, however, in the fourth improvisation he was still able to sustain musical contact, even though he chose to end the session early.

Audio files of the four selected data are included on a compact disc, which accompanies this thesis.

Data Analysis

An eclectic approach was employed in the analysis of musical data by incorporating the client's background and session information (Forinash and Gonzalez, 1989) Arnason's (2002) idea on open listening and reflection and the use of Bruscia's Autonomy and Variability profiles in adapted versions by Wigram (2007) and Wosch (2007). The study of significant syntax (musical elements), semantics (referential meaning), and an overall evaluation at the end, as featured in Forinash and Gonzalez's method (1989), are covered in written description and interpretation. The analysis of each improvisation includes the following five sections.

I: Clinical notes and reflections

I reviewed, several times, the written observations and impressions about the session, about the improvisation and how I felt or thought about the music or therapeutic relationship. Sometimes themes were identified and used as title for

the chapter. Sometimes issues mentioned in this section were discussed in the last section - description and interpretation - to provide clinical context for the analysis findings.

II: Open listening

I identified important aspects or quality about the music and my reflections after listening.

III: Notation

Music was transcribed using traditional notation combined with unconventional symbols to suit the style of each improvisation.

IV: IAP microanalysis

Investigation on the role relationships between Chris and me through the Autonomy profile and sequential aspects were examined through the Variability profile. Tables, graphs and diagrams are used to present the results.

V: Description and interpretation

A summary of findings from the previous sections through descriptions of musical characteristics and transitions within the improvisation, also in terms of their possible meaning to the Chris' world and his relationship with me.

After the notation for each improvisation was produced, I followed the procedures for IAPs analysis as suggested by Wosch (2007) and/or Wigram (2007) while also referring back to Bruscia's original instructions and guidelines on using IAPs (1987). The procedures and elements in the analysis using the Autonomy and Variability profiles are explained in the next section. Scores and graphs generated through the following methods

do not represent the actual musical content of improvisations - they merely show event changes in specific musical parameters.

Event-based microanalysis using the Autonomy profile. The Autonomy profile incorporates five gradients to show the role relationships formed between the improvisers:

Figure 1.7

Five Gradients for the Autonomy Profile in Bruscia's IAPs (1987, p. 409)

1	2	3	4	5
Dependent	Follower	Partner	Leader	Resister

Bruscia (1987) lists nine musical scales to observe role changes, but as in adapted versions by Wigram and Wosch, I will only select three scales which I identify as the most important or relevant scales specifically for each improvisation.

Figure 1.8

Nine Musical Scales Bruscia Lists under Autonomy Profile (1987, p. 409)

• Rhythmic Ground • Rhythmic Figure • Tonal + Melodic • Harmonic	• Texture	• Phrasing	• Volume • Timbre	• Programme/Lyrics

Bruscia's definition of each scale is summarised below. Only three of the nine scales, considered most important or applicable for each of my improvisation with Chris, will be examined in the analysis.

Figure 1.9

Definition of the Nine Musical Scales (Bruscia, 1987, pp. 444-445)

• Rhythmic Ground	tempo, meter, and subdivisions
• Rhythmic Figure	rhythmic content and form of the improvisation; rhythmic themes and their sequencing
• Tonal/Melodic	modality, tonality and melody
• Harmonic	chord selection, voicings, progressions, relationships of the chord to the melody
• Texture	Textures, registers, and voicing configurations
• Phrasing	length and shape of phrases and their sequencing
• Volume	setting volume levels, making volume changes, intensity and amount of sound
• Timbre	medium, instrument, production techniques and sound vocabulary
• Programme/Lyrics	selection or invention a programme or lyrics

To determine the establishment and changes of roles, Bruscia also provides detailed descriptions on the characteristics of each gradient. Below is a summarised version.

Figure 1.10

Definition of the Five Gradients in Autonomy Profile (Bruscia, 1987, 446-447)

1	Dependent	The client takes the follower role exclusively, never takes a leader role.
2	Follower	The client consistently takes the follower role more readily than the leader role. The client tends to match the partner's playing, occasionally takes leader role and makes changes.
3	Partner	The client assumes leader and follower roles with equal frequency. The client and partner influence each other equally in controlling or giving direction to aspects of the music.
4	Leader	The client consistently takes the leader role more readily than the follower role.
5	Resister	The client continually attempts to evade or destroy any leader-follower relationship with the partner.

How findings are presented. Three types of tables and a graph are used to present role changes in Autonomy. The first table is a tabular score with timeline, the second table lists the frequency of change across each section, and the third shows under which

musical scales the role changes occurred. Lastly, the events of role changes under each section are presented in graph form.

If the chosen scales were rhythmic ground, melody and timbre, the tabular score might look like Figure 1.11, as an example. A micro section starts when a change in one of the scales is noted, as seen along the timeline row. This, as Wosch (2007) explains, allowed "change in the autonomy category and interpersonal content to be observed within individual scales" and therefore the tabular score showed, for example, six sections or interpersonal transitions within a thirty-second improvisation (p. 250). In some instances, there might not be a change within a particular parameter, but if its activity was re-established at the start of a micro section, it has been marked on the tabular score. An alphabetic letter has been assigned to represent each improviser - C for Chris and A for Anna. Division of sections have been made based on thematic organisation or blocks of similar length of time.

Figure 1.11

Tabular Score for Autonomy Profile

Autonomy								
Time (in minutes)		0	0:04	0:10	0:13	0:21	0:28	0:30
Depen-dent	Rhythmic ground							
	Melody							
	Timbre							
Follower	Rhythmic ground		C		A			
	Melody							
	Timbre						C	
Partner	Rhythmic ground							
	Melody							
	Timbre							
Leader	Rhythmic ground	C	A		C			A
	Melody							A
	Timbre					A		
Resister	Rhythmic ground			C,A				
	Melody					A		
	Timbre							
Time (in minutes)		A		B		C		

The frequency of change from the above tabular score has been first calculated and presented in a table such as the one below, to see if there are significant differences between sections and improvisers.

Figure 1.12

Total Frequency of Change in Autonomy Across Three Sections

Autonomy				
	A	B	C	Total
Chris	2	2	1	5
Anna	1	2	4	7

The third table allows links to be drawn between specific musical scales and role changes. It shows how each improviser has made role changes by manipulating specific elements of his/her music. Similarities and differences between the improvisers can be noted and compared.

Figure 1.13

Frequency of Autonomy Change in Three Musical Scales

Autonomy: Chris					
	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground		1		2	1
Melody					
Timbre		1			
Total: (5)	0	2	0	2	1
Autonomy: Anna					
	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground		1		2	1
Melody				1	1
Timbre				1	
Total: (7)	0	1	0	4	2

Graphs generally give a clearer visualisation than table figures. Wosch (2007) uses graphs to show the distribution and dominance of the five roles at different timeframes of the improvisation, such as from zero to 30 seconds, 30 seconds to one minute and so on. But here blocks of time have been divided into sections. Graphs feature in the analysis and have been made through the graphing function in Microsoft Word. Each graph represents one improviser - the first one below was Chris' and the second represented my part.

Figure 1.14

Chris' Frequency of Change in Autonomy Across Three Sections

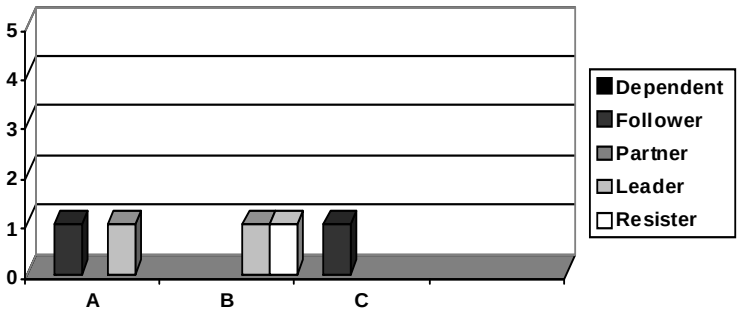
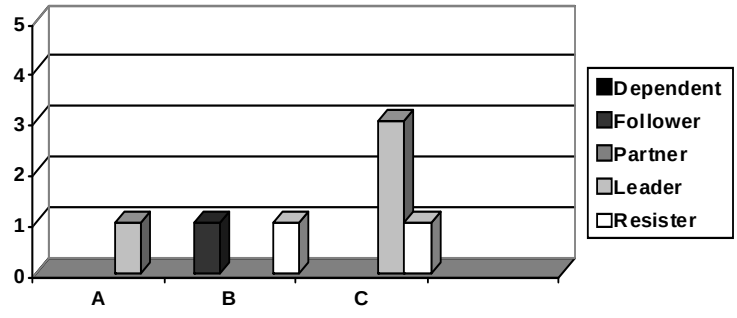


Figure 1.15

Anna's Frequency of Change in Autonomy Across Three Sections



Event-based microanalysis using the Variability profile. Within the microanalysis section for chapter four, tables and graphs showing results from the

Autonomy and Variability profiles are sometimes presented together rather than separately, in order to demonstrate activities of change or relate musical scales from different profiles more clearly.

Here are the descriptions of the Variability profile. It contains five gradients.

Figure 1.16

Five Gradients in Bruscia's Variability Profile (1987, p. 407)

1	2	3	4	5
Rigid	Stable	Variable	Contrasting	Random

A summary of Bruscia's definition on these gradients is as follows.

Figure 1.17

Definition of the Five Gradients in Variability Profile (Bruscia, 1987, pp. 430-431)

1	Rigid	Severe limitations in the number of options for change, an unswerving focus, and an active avoidance of even slight, occasional, gradual changes.
2	Stable	Delimitation in the options for change, a selective, stable focus, and active efforts to preserve, maintain and repeat a particular aspect or musical element.
3	Variable	A balance and integration of efforts to stabilise and change the music. The focus is stable yet flexible, selective yet adaptive.
4	Contrasting	A wide range of change options, shifting foci, and dramatic changes. There are active efforts to go in entirely new and different directions.
5	Random	An unlimited rnage of change possibilities, a lack of focus, and an absence of any efforts to preserve, maintain or repeat previous materials.

There are more musical scales in Variability to consider than Autonomy profile, as the scales tend to be divided into smaller components:

Figure 1.18

Bruscia's List of Musical Scales within Variability Profile (1987, p. 407)

• Tempo • Meter/Subdivisions • Rhythmic Figure	• Melodic Figure • Tonal Ground • Harmonic • Style	• Texture: Overall • Texture: Roles • Texture: Register • Texture Configurations	• Phrasing • Volume • Timbre • Body	• Lyrics

Each scale can be defined as seen in Figure 1.19. Three of these musical scales, considered most prominent or applicable elements, will be examined for the analyses. This selection will differ for each improvisation, depending on factors such as the instrumentation and characteristics of the music.

Figure 1.19

Bruscia's Definition of Each Scale in Variability Profile (1987, pp. 428-429)

• Tempo	The range of tempo used, the amount, frequency and abruptness of changes
• Meter/Subdivisions	The range of meters and subdivisions used, and the extent, frequency and abruptness of changes
• Rhythmic Figure	The extent rhythmic ideas or themes repeated, varied, developed, changed and contrasted
• Melodic Figure	The extent melodic ideas or themes repeated, varied, developed, changed and contrasted
• Tonal Ground • Harmonic	The range of scales and key centres used, and the amount, frequency and abruptness of changes
• Style	The range of chords, chord voicings, and progression used, and the amount, frequency and abruptness of changes
	The extent a particular musical style is maintained throughout the improvisation
• Texture: Overall	The range of overall textures (e.g., monophony, homophony, polyphony) used, and the frequency and abruptness of changes
• Texture: Roles	The extent textural roles maintained, varied, or contrasted
• Texture: Register	The breadth of pitch ranges used, and the amount, frequency and abruptness of changes
• Texture: Configurations	The range of voicing configurations used, and the extent, frequency, and abruptness of changes
• Phrasing	The range, frequency and abruptness of changes in length and shape of phrases
• Timbre	The range of sound qualities used, and the amount, frequency, and abruptness of changes. It is affected by the choice of medium, instruments, sound production techniques and basic sound vocabulary
• Volume	The range of dynamics used, and the amount, frequency and abruptness of changes in sound intensity and mass
• Body	The extent the improviser's posture, movement, patterns, facial expressions remain the same or change
• Programme	The range of characters and events used within the programme
• Lyrics	The repetitiveness of the lyrics

How findings are presented. The three types of tables and the graph used for the Autonomy profile, are also used to reflect changes in Variability. Neither Wigram nor Wosch provides an example of analysis using the Variability profile for improvisations played by more than one player. Nevertheless, I found Wosch's tabular score for

Autonomy equally suitable for the Variability profile and by using the same tabular format, under the same or similar micro section divisions, it would be easier to review the improvisation as a whole and visualise activities of changes. A tabular score for the Variability profile could look like this:

Figure 1.20

Tabular Score for Variability Profile

Variability								
Time (in minutes)		0	0:04	0:10	0:13	0:21	0:28	0:30
Rigid	Tempo							
	Melodic Figure							
	Timbre							
Stable	Tempo							
	Melodic Figure							
	Timbre							
Variable	Tempo							
	Melodic Figure							
	Timbre							
Con-trasing	Tempo							
	Melodic Figure							
	Timbre							
Random	Tempo							
	Melodic Figure							
	Timbre							
Time (in minutes)		A		B		C		

The frequency of change in each section has been calculated and presented in a table such as the one below to see if they are significant differences between sections and improvisers:

Figure 1.21

Total Frequency of Change in Variability Across Three Sections

Variability				
	A	B	C	Total
Chris				
Anna				

The third table shows how each improviser has changed their level of variability by manipulating specific elements of his/her music, so that similarities and differences between the improvisers can be compared.

Figure 1.22

Frequency of Variability Change in Three Musical Scales

Variability: Chris					
	Rigid	Stable	Variable	Contrasting	Random
Tempo					
Melodic Figure					
Timbre					
Total:					
Variability: Anna					
	Rigid	Stable	Variable	Contrasting	Random
Tempo					
Melodic Figure					
Timbre					
Total:					

Again, a graph is used to show each improviser's activity of change for each section. The numbers for the two examples below were unrealistic but have been made up merely to show the visualisation of graphic presentation.

Figure 1.23

Chris' Frequency of Change in Autonomy Across Three Sections

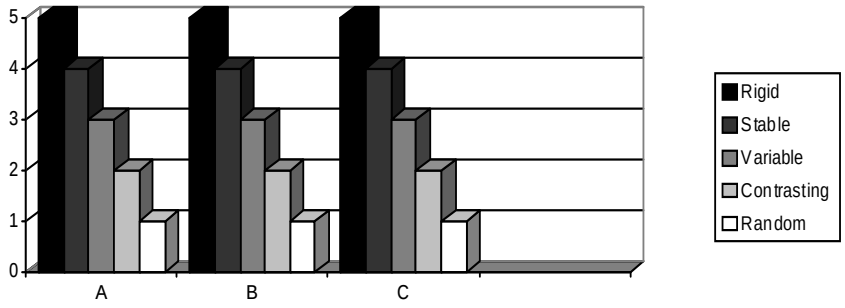
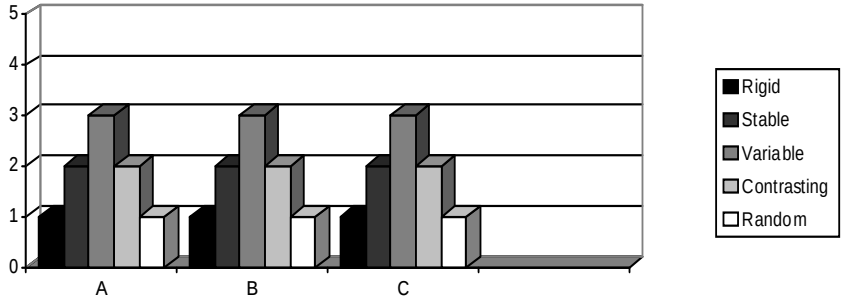


Figure 1.24

Anna's Frequency of Change in Autonomy Across Three Sections



Guidelines for the interpretation of IAP. Bruscia provides short guidelines for the interpretation of both Autonomy and Variability profiles, which have been consulted when relevant in the discussion of results from microanalysis.

Ethical Review

Initially I anticipated working with a music therapist participant, who would verify my findings and/or provide a different perspective through answering semi-structured questionnaires about the four improvisations. However, no response was received after advertising through the Music Therapy New Zealand website. Although it was tempting to contact music therapists directly, I was aware that it would be unethical to do so. The idea of peer debriefing with other music therapy students could have been a possible alternative if I was able to reflect on my clinical experience for this research earlier to allow time to share with my peers and to incorporate their responses in the research process. Due to this time restraint, I therefore chose not to include peer input while trying to carry out this research investigation with as much rigor as I could.

Confidentiality. Every effort was made to maintain confidentiality. Real names were not used in this report and will not be used in any publication of the research. For

music-centered research it is important to provide audio extracts with the thesis. If the participant has a distinctive communication style, it is possible that he may be identifiable from the recording. It was ensured that Chris' caregivers were aware of this risk.

Informed consent. It was also possible that caregivers might give consent because they were anxious to please me as I was also the music therapy clinician. The information sheet involved careful wording to reinforce their right to choose. Informed consent was given by the school and caregivers of the participant. The information sheet and consent form are included in the Appendix.

Ethics approval. The materials and processes used in this research was reviewed and approved by the Massey University Human Ethics Committee: southern A, Application 09/45.

Having covered the method of data selection and of data analysis using the autonomy and variability profiles as well as the ethical considerations, the following chapter presents the findings for this study. Each of the four improvisations will be presented in five sections (as introduced under "data analysis" from page 33 to 34 of this chapter): clinical notes and reflections, opening listening, notation, IAP microanalysis, and description and interpretation.

Chapter 4.1: Findings - "The Visitor"

The first improvisation, which lasted about one minute and 56 seconds (track 1 on CD), was taken from my third individual session with Chris. It was a non-referential instrumental improvisation as we were still getting to know each other. Chris chose a wooden xylophone. It was diatonic and consisted of twelve notes starting from the middle C. And I played an electronic keyboard.

I: Clinical Notes & Reflections

The session. Visual activity cards were first introduced in this session to encourage choice making, but I found that Chris' reading skills were limited. This was later confirmed by the speech and language therapist. In the first activity, Chris chose the xylophone to play in a solo improvisation which was 1'15" in length. It was mostly marked by fast, loud seemingly random notes using two beaters. Despite the sense of disorganization in the music, it was observed that the ending was played intentionally and musically. I asked him what he thought of it after listening to the playback, he said: "it's cool".

The improvisation. Chris chose to stay on the xylophone for joint improvisation. When he was asked what I could play, he pointed to the keyboard, which was also the furthest instrument away from where he was seated. Chris did not wait for me to start, but began playing the xylophone independently. I found it rather hard to join in during the improvisation, and it sounded as though he had no interest in my musical presence. So I played some low notes trying to give grounding and other times I played the high notes just to be heard. There appeared to be a fight for the control to end this improvisation –

there were times when it felt like the ending, but Chris kept going, until he played the final note. After listening to the recording, he gave the same comment: “it’s cool”.

II: Open Listening

The lack of space in the music gave me the impression that Chris was not interested in interacting with me. However, Chris’ own music showed a level of organization, mixed with a sense of experimentation. Chris’ music was overall driven by a steady, lively pace accompanied by loud volume and detached articulation throughout. While the melodic notes sounded as if they were played randomly, the rhythm and phrasing of melodic lines were sometimes structured and musical.

In a sense, I perceived my music to be accompaniment, and sometimes almost extra or even unnecessary as Chris seemed to be absorbed in his own world. My attempts to fit in, provide grounding, imitate and interact sometimes sounded out of place, although occasionally an accidental blend of harmony occurred for just fleeting moments. It would be interesting to investigate whether and/or the extent Chris’s playing was affected by my musical presence – was he aware, confused, unaffected or uncertain?

My imagery of this improvisation is this: Chris, happy in his own world of explorations, was joined by an uninvited visitor who insisted in accompanying his solitary adventure. There were a lot of running and jumping around along the way, and the visitor almost had to chase Chris just to keep up. Despite that Chris did not fully understand why he needed company, he knew where he was heading to and he kept going.

III: Notation

The transcription of this improvisation was not always straight forward. The keyboard was an old model and the sound quality was sometimes hard to distinguish

when heard against the sounds of the xylophone, which was possibly positioned closer to the digital recording device. Nevertheless, this transcription was done to my best aural ability in the timeframe given, aiming to present the music in an accessible way to the listener and reader of this analysis.

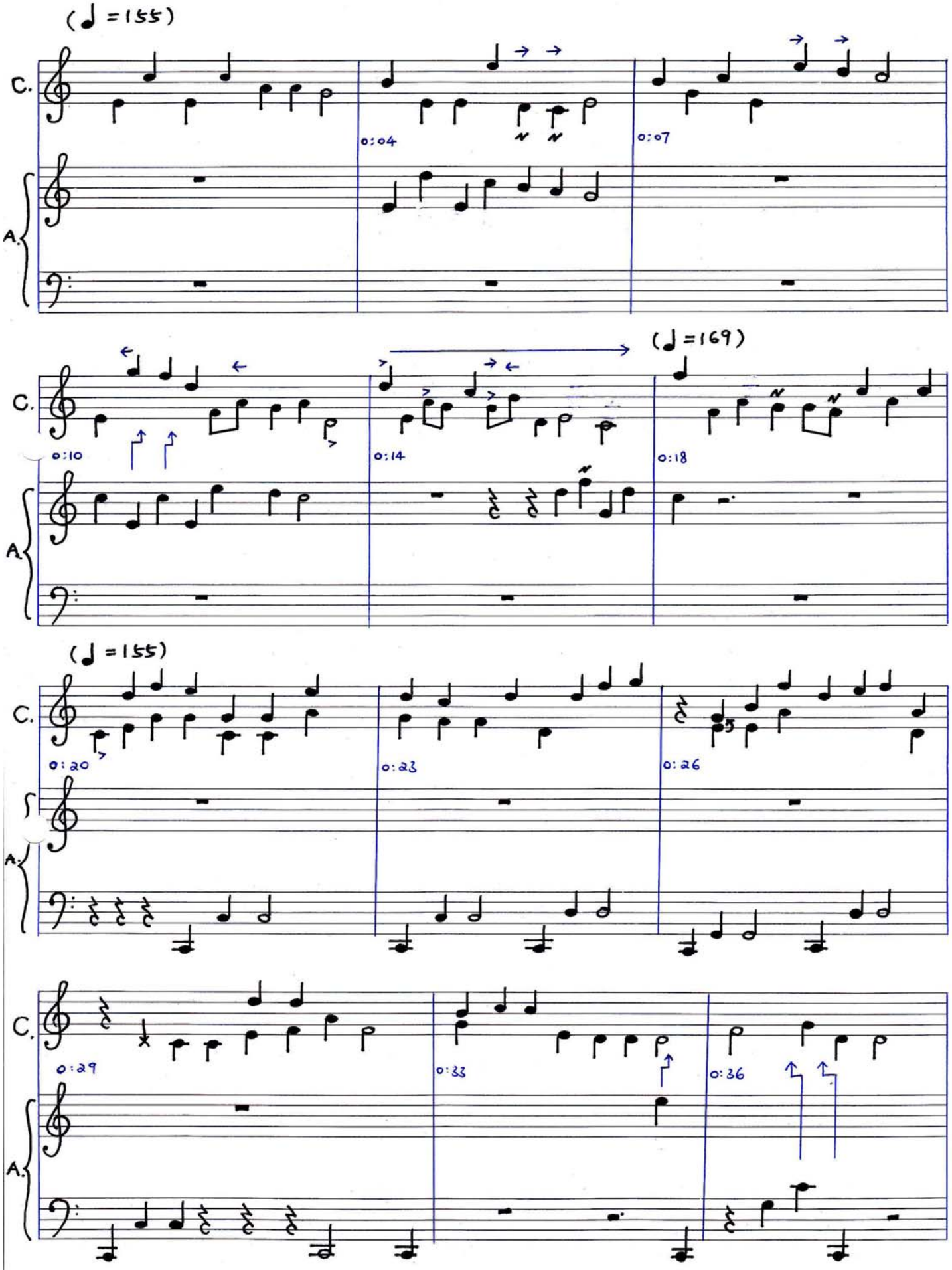
The score was written in open time signature. Divisions were made to mark points of reference by following natural breaks of phrasing from Chris' playing or grouping similar melodic and/or rhythmic ideas together. A common number of beats in a bar was eight crotchets but it can vary and stretch up to 13 crotchets. As a percussive instrument, xylophone is typically played in a detached matter, technically impossible to sustain long notes. However, long notes of minims and semibreves were notated where I interpreted it as part of Chris' intended phrasing. No dynamic markings were made due to the small range of change presented in this improvisation. Approximate tempo changes were marked in six places.

The following symbols were used with conventional notation elements to specify the articulation, timing and quality of notes.

- Adjacent note(s) were sounded
- Played with slight haste within the tempo
- Played with slight delay within the tempo
- Lower part played slightly after the top part
- Lower part played slightly before the top part
- Steady acceleration in tempo

- Lower note played like a grace note
- Sound made by hitting the body of xylophone
- Cluster of unclear notes
- Glissando

Chris played with one beater in each hand. To reflect this and to capture his possible movement between right and left hand, stems were always written up for his high notes and down for lower notes (although it would not be an accurate indication of his movement).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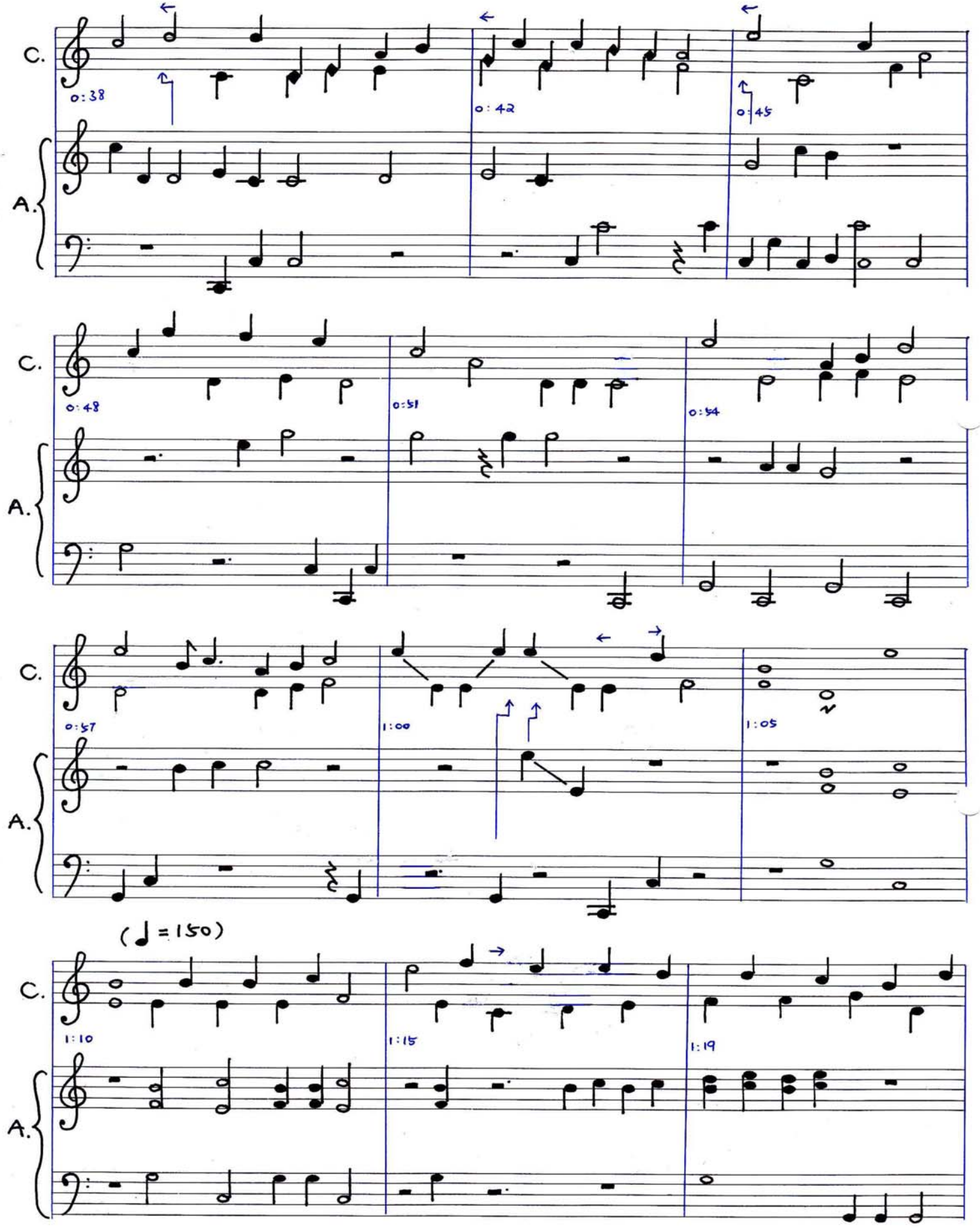
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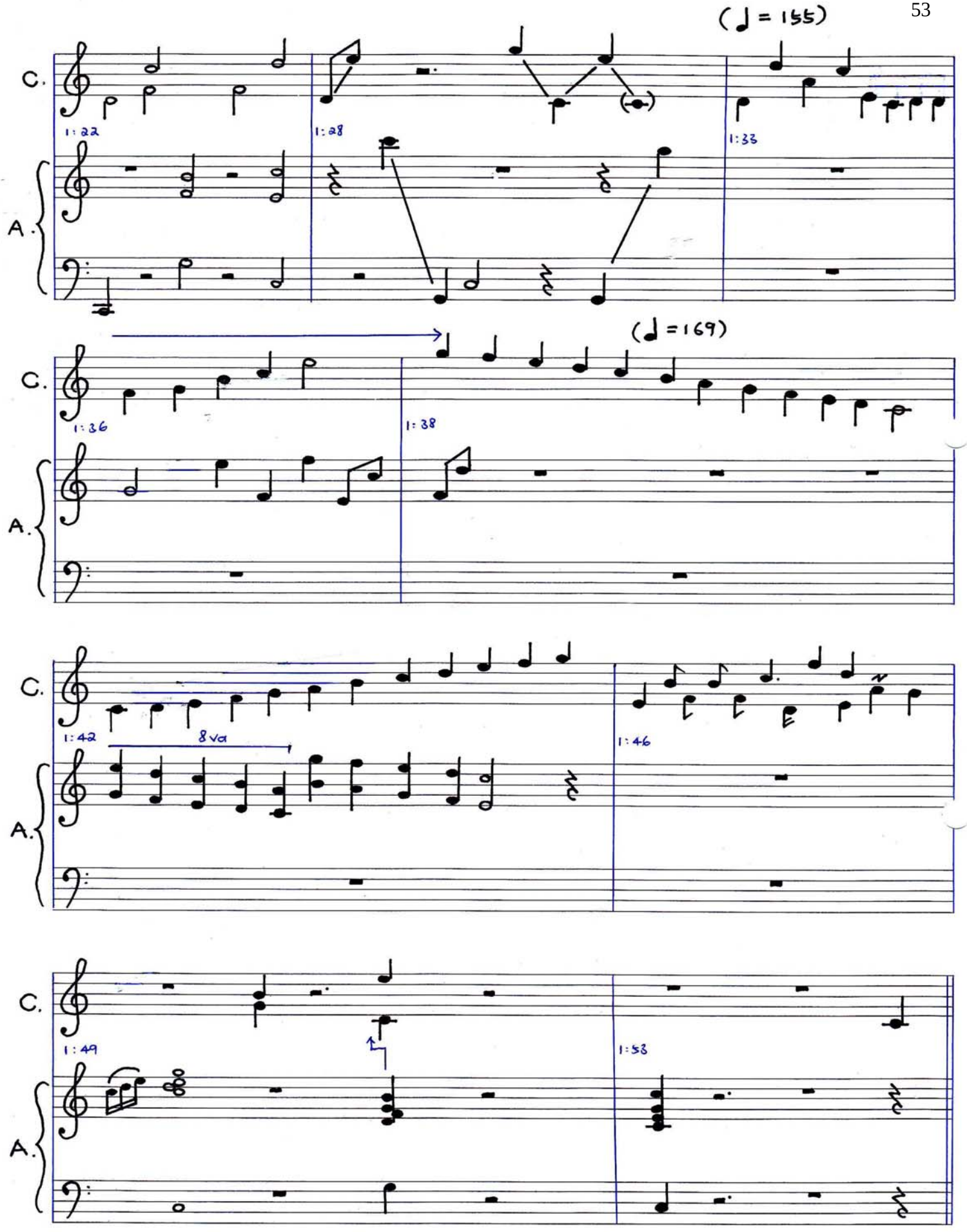
1:05
(♩ = 150)
1:10
1:15
1:19


(♩ = 155)
C.
A.
1:22
1:28
1:33
(♩ = 169)
1:36
1:38
1:42
8va
1:46
1:49
1:53

IV: IAP Microanalysis

Rhythmic ground (which covers tempo, meter and subdivisions), tonality/melody and phrasing (length, shape and sequencing of phrases) were selected for the Autonomy profile. These scales touch on the rhythmic, melodic, tonal and structural aspects of this improvisation and reflect important changes in role relationships. Nine points of interactional transition were identified, as seen below.

Figure 2.1

Tabular Score for Autonomy Profile

Autonomy											
Time (in minutes)		0	0:14	0:20	0:33	1:05	1:10	1:28	1:33	1:36	1:49
Depen-dent	R. Ground	A									
	Tonal/Mel.										
	Phrasing	A									
Follower	R. Ground		A							A	
	Tonal/Mel.	A						A		A	
	Phrasing		A								
Partner	R. Ground			A							A
	Tonal/Mel.			A							A
	Phrasing				A						A
Leader	R. Ground	C	C				C		C		
	Tonal/Mel.	C				A			C		
	Phrasing	C		A					C		
Resister	R. Ground										
	Tonal/Mel.										
	Phrasing										

The Autonomy score showed that I made noticeably more role changes than Chris across the timeline and I varied my role more flexibly than him during our musical interactions.

Figure 2.2

Frequency of Autonomy Change in Three Musical Scales

Chris	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground				4	
Tonal/Melodic				2	
Phrasing				2	
Total: (8)				8	
Anna	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground	1	2	2		
Tonal/Melodic		3	2	1	
Phrasing	1	1	2	1	
Total: (16)	2	6	6	2	

While Chris persisted taking the leader role in all of the three examined musical scales, my responses mostly split between becoming Chris' follower and partner. In Figure 2.3, which divided the improvisation into four roughly 30-second sections, role changes were particularly frequent during the first section. This could be a possible reflection of Chris' need to establish and strengthen his leadership role and my need to "fit in" or find a compatible style of interaction at the beginning.

Figure 2.3

Total Frequency of Change in Autonomy Across Four Sections

	0-32'	33-64'	65-92'	93-116'	Total
Chris	4		1	3	8
Anna	8	1	2	5	16

For the Variability profile, aspects of rhythm examined were tempo and metre/subdivisions, which were also used in Autonomy but now they are reviewed as separate elements rather than grouped under rhythmic ground. Melodic organization was also investigated here on its own, rather than linked with tonality. A large number of

micro sections – a total of 22 - were observed reflecting a high rate of change in variability.

Figure 2.4

Tabular Score for Variability Profile

Variability												
Time (in minutes)		0	0:10	0:14	0:20	0:29	0:36	0:38	0:42	0:51	1:00	1:05
Rigid	Tempo											
	Metre/Subd.											
	Melody											
Stable	Tempo	C, A			C			A		C		A
	Metre/Subd.	C,A						A	C			
	Melody	A			A							A
Variable	Tempo			C			C				C	
	Metre/Subd.			C		A					C,A	
	Melody	C						A				
Con-trasting	Tempo											
	Metre/Subd.											
	Melody											
Random	Tempo											
	Metre/Subd.											
	Melody		C									
Time (in minutes)		1:10	1:15	1:22	1:28	1:33	1:36	1:38	1:40	1:42	1:46	1:49
Rigid	Tempo											
	Metre/Subd.											
	Melody							C		C,A		
Stable	Tempo								C	A		
	Metre/Subd.	C,A				C						
	Melody	C										
Variable	Tempo						A				C	
	Metre/Subd.			A	A		C,A					
	Melody											C,A
Con-trasting	Tempo						C					
	Metre/Subd.											
	Melody			C	A							
Random	Tempo											
	Metre/Subd.				C							
	Melody					C					C	

Chris' part showed more changes or transitions than mine, particularly in the first and last section.

Figure 2.5

Total Frequency of Change in Variability Across Four Sections

	0-35'	36-64'	65-92'	93-116'	Total
Chris	7	5	4	9	26
Anna	5	4	6	5	20

As seen in the following table, both Chris and my music showed similarly high frequency in stability and variability. It seemed to indicate a good level of overall control and consistency from both improvisers.

Figure 2.6

Frequency of Variability Change in Three Musical Scales

Chris	Rigid	Stable	Variable	Contrasting	Random
Tempo		4	4	1	
Metre/Subdivision		4	3		1
Melody	2	1	2	1	3
Total: (26)	2	9	9	2	4
Anna	Rigid	Stable	Variable	Contrasting	Random
Tempo		4	1		
Metre/Subdivision		3	5		
Melody	1	3	2	1	
Total: (20)	1	10	8	1	

While Chris' part reflected stability and variability particularly in tempo and metre/subdivisions, the melodic aspect showed various levels of variability, ranging from rigidity to randomness. My music seemed to maintain stability in all scales while also showing flexibility.

The following graphs feature events in the Autonomy and Variability profile across each 30-second section (divisions are approximate) of the whole improvisation.

Figure 2.7

Chris' Frequency of Change in Autonomy across Four Sections

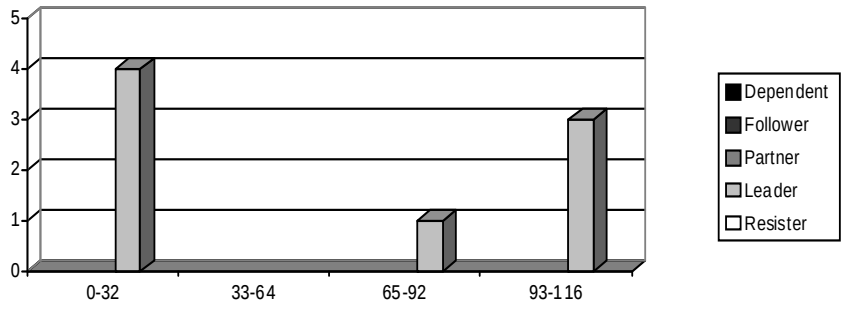


Figure 2.8

Anna's Frequency of Change in Autonomy across Four Sections

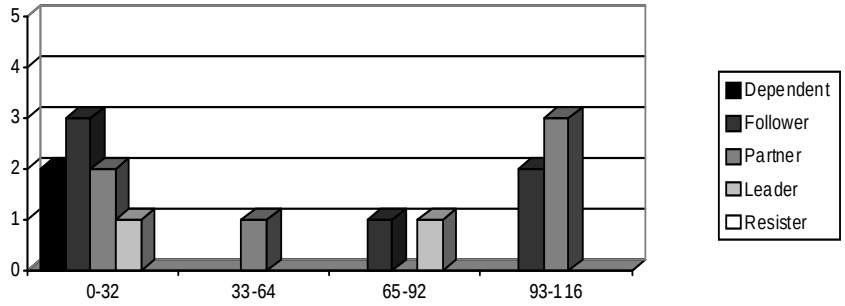


Figure 2.9

Chris' Frequency of Change in Variability across Four Sections

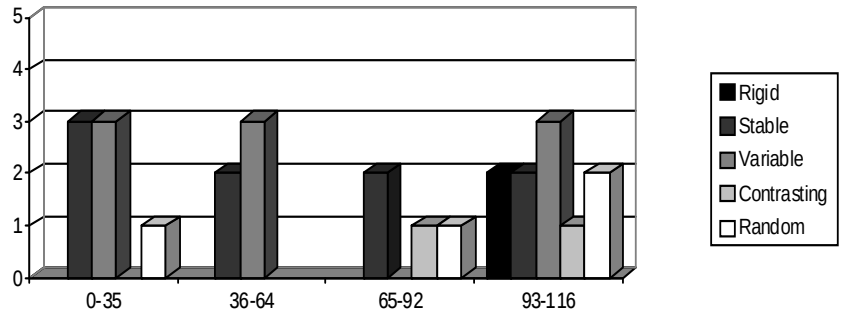
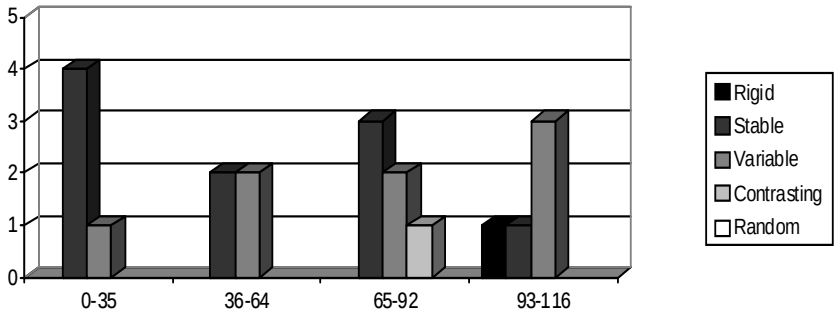


Figure 2.10

Anna's Frequency of Change in Variability across Four Sections



In the first section, Chris established his leader role, and showed both stability and flexibility in varying aspects of his music. I adapted a number of roles - dependent, follower, partner and also leader - to work with Chris' leadership, and my music seemed to strive for stability, perhaps to retain some control and consistency. The second section was marked by a minimal change in role relationships from both parties, which also showed similar levels of stability and variability. Stability was still retained by both improvisers in section three but some exploration of roles and variability took place in both parts. The last section seemed to be an interesting one. Chris restated his leadership role as I became more of a partner than a mere follower. Stability was replaced by high levels of variability from both improvisers, and Chris continued an exploration of freedom, venturing into rigidness, contrast and randomness.

V: Description and Interpretation

Since the first individual session, xylophone had been used with Chris in different activities. It was not surprising that he held onto this familiar instrument or perhaps demanding a safe distance between him and me by asking me to play the keyboard. Before a trusting relationship is established between us, Chris could be focusing on the

object of interaction – the instrument. This concept of "relating self to object" as the first stage of therapeutic process is highlighted in Alvin's free improvisation therapy model which reinforces the therapist's role in nurturing pleasurable experiences, respecting freedom of choice, giving client space and using a non-directive approach (Alvin, 1978).

From the clinical notes and my memory of this improvisation, I was frustrated with the lack of connection that was felt. This also could be affected by a reasonable level of anxiety from both of us – I was anxious trying to establish my role and work in a new placement, and he might have been anxious adjusting to a new context, a new person and new experiences. Perhaps for both of us, it was the beginning to an uncertain journey of discovering who we were and why we were here. Transference[1] and counter-transference[2] could also be part of this experience as uncertainty, fear of rejection and defensiveness were likely to be aroused.

Chris insisted on leader role and maintained dominance and high level of control throughout the improvisation. Bruscia explains that, if the client's musical identity and boundaries are unclear, it may affect his/her freedom to share musical materials, sounds, qualities and willingness to "co-experience the same things at the same time" (1987, p. 448). It could have been a factor in Chris' inflexibility to change to other roles and it also impacted my responses – as I varied my role between playing the dependent, follower, and partner throughout the improvisation, there was a restless feeling of powerlessness and rejection. This could be a result of transference from Chris, who might often feel

[1] One can bring expectations and assumptions to new encounters, transferring them from past experience of relating (Gray, 1994). A client brings invariably complex range of feelings directed towards the therapist that are transferred in an unconscious way into his/her relationship with the therapist. The therapist may become aware of receiving projections of both a positive and negative kind (Bunt & Hoskyns, 2002, p. 42)

[2] The strong feelings developed by a therapist towards a client are construed as counter-transference. These could be a resource in gaining insight into the client's therapeutic process and the client's unconscious world in order to work empathetically with the client with underlying issues (Bunt & Hoskyns, 2002, p. 42).

powerless when coping with unpredictable surroundings and overwhelming demands made by people. Feelings of rejections could have been evoked when dealing with disabling effects of ASD, particularly in experiences of teasing from peers and siblings. Also, the sense of rejection projected in our interactions could be related to the possibility of "secondary handicap" (Stokes & Sinason, 1992), which refers to the emotional impairment for people with disabilities that often associated with their caregivers' instinctive tendency to distance themselves emotionally as a way of dealing with their children's conditions.[3] In perspective, Chris' way of relating was common for individuals with disabilities, but it was still very challenging when I first experienced the personal impact it had on me as a therapist.

It was perceived in the opening listening, that my musical presence had been an uninvited accompaniment to Chris, inspiring the title of "The Visitor". Indeed, results from the IAP microanalysis confirmed Chris' consistent dominance (as a leader role in the Autonomy profile) and his need for musical stability as well as freedom to explore, shown in the frequency and range of changes in the Variability profile. In my attempts to interact with Chris in a non-confrontational way, several techniques were used to make meaningful contacts in music. The following part describes the improvisation from the "visitor's" perspective in her "quest" to become a companion to Chris on an unfamiliar musical journey.

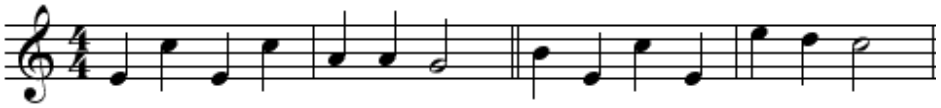
---

[3] Stokes and Sinason wrote: "having a handicapped baby is usually a trauma for the parents, the baby and the community. However much love develops later between parents and handicapped baby, there is often a difficulty in making an attachment at the start. This is not surprising when we consider that there is a strong biological wish to have a child at least as healthy as yourself. To have a baby who is damaged in some way is a blow to the self as a procreating being and usually evokes a reaction of rejection that could be in part instinctive. Similarly, the handicapped individual can represent all the damaged aspects of ourselves we want to be rid of. Hence the wish, despite recent moves towards community care, to hide handicapped people away from the rest of the community. The actual lack of adequate facilities in the community contributes to this distancing process (1992, p. 48).

Chris began the music with a clearly structured solo statement – a two-bar phrase in 4/4 time, consisting of big interval leaps then descending stepwise melodic finish. He played a melodic variation also in the third phrase.

Figure 2.11

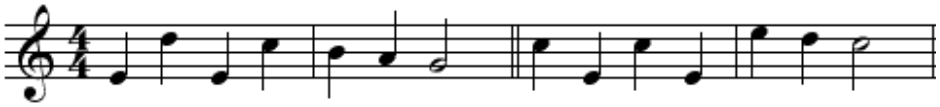
Chris' Opening Statement (0'00") and Variation (0'07")



In these two instances, I followed Chris by matching the above melody, despite that he kept on playing.

Figure 2.12

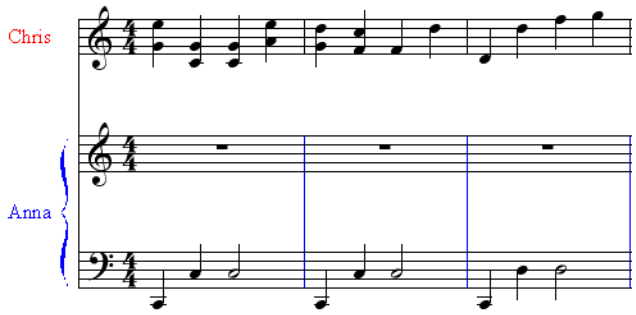
Anna's Matching Phrases (0'04" and 0'10")



Soon after I joined in, Chris' music moved away from structured metre and phrasing as well as steady tempo. His melody became random and started speeding up the already fast-moving pace. The only consistency was that he kept on playing, non-stop. After a few moments when his tempo stabilised again, I offered rhythmic and tonal grounding on a C tonic pedal to accompany his mostly crotchet beats while synchronising with his tempo.

Figure 2.13

Rhythmic/Tonal Grounding Figure



Grounding is a technique used to "anchor" the client's music when the client appears unconnected to their music, or lacks stability direction or intentionality (Wigram, 2004). In this case, my grounding shaped Chris' beats into a 4/4 time and established C as the tonal centre. From 0'20" to 0'30", the grounding I offered was also recorded as a *partner* event on the Autonomy score. This was a momentary phase, in which we were playing simultaneously as Chris' tempo and my melody both changed to stable on the Variability profile.

Throughout the rest of the improvisation, the tonal grounding of C pedal was maintained and I began to feel more comfortable playing along with Chris, accepting the idea that he was not interested in turn-taking. After my grounding figure (Figure 2.13) lost its momentum in 4/4 time, I continued the octave playing in flexible time while also trying to incorporate Chris' short motifs into my right hand from 0'33" onwards.

Figure 2.14

Chris' Melody at 0'33" (Motifs Are Slurred)

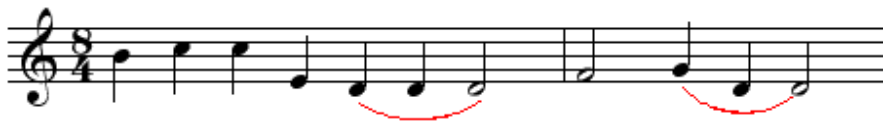
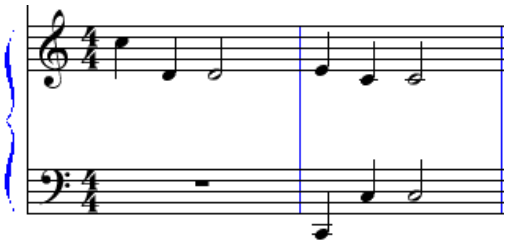


Figure 2.15

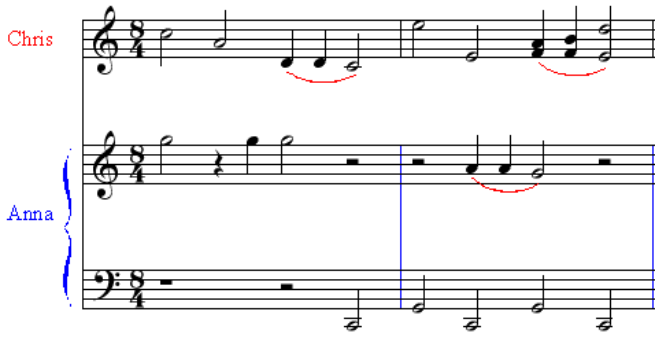
Chris' Motifs Incorporated in my Right Hand From 0'38"



Although there seemed to be a lack of musical focus in this section as both of us strive for a level of variability and flexibility, the short motif became a common thread woven into both Chris and my part.

Figure 2.16

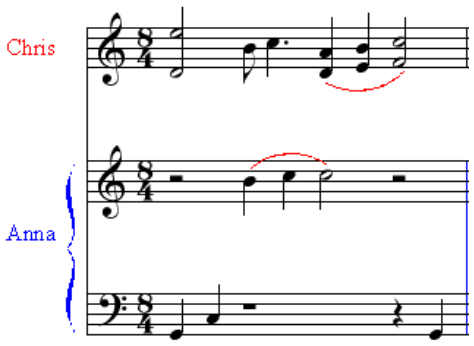
Occurrence of Chris' Motif From 0'51" (Motifs Are Slurred in Both Parts)



In the next bar, the motif also appeared in both of our parts in an ascending motion.

Figure 2.17

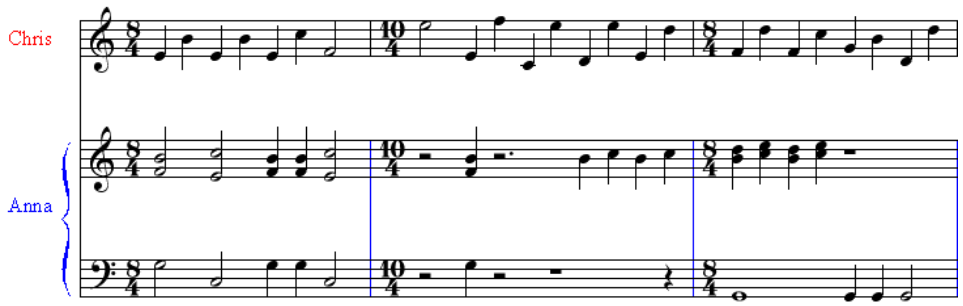
Chris' Motif in Ascending Motion in Both Parts (Motifs Slurred) at 0'57"



At 1'00" Chris suddenly engaged in playing glissandi, which was imitated once by me on the keyboard before he soon moved onto several long held notes. I interpreted it as a place to end by playing perfect cadence – dominant seventh to tonic - synchronised with his semibreves. However, Chris did not agree with my timing to end the music, and kept on playing with left and right hand alternation of mostly big intervals in crotchets from 1'10" to 1'22" (Figure 2.18). I felt I had no choice but to carry on until Chris felt it was comfortable to finish, but I tried to repeat and vary my perfect cadence figure to assist the ending process.

Figure 2.18

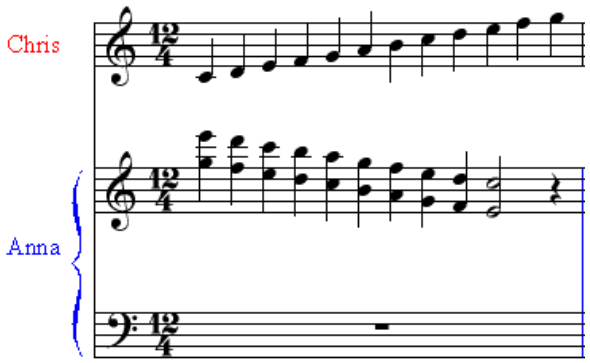
Persisting Perfect Cadences When Chris Refused to Finish (1:10)



My repetitions of perfect cadences were abruptly interrupted when Chris again turned to playing glissandi briefly. Perhaps it was also a form of protest or distraction. I followed him by copying glissando movements on the keyboard, using a big range of register. Soon Chris moved away from glissandi and before I could follow what he was doing, he began accelerating moving up to the top G on the xylophone. The next theme he played was the scale, from top to bottom note, before repeating the scale in the opposite motion. This was considered rigid on the Variability profile, as the scale tends to be a stereotype musical behaviour common to individuals with ASD, which often relate to their repetitive, rigid behaviour rather than meaningful communication. I accompanied Chris' upward scale by playing consecutive sixths in an opposite, descending motion.

Figure 2.19

Scale Playing by Chris and my Accompaniment at 1'42"



In music therapy, it is important to "be with" the client and start where they are. Throughout this improvisation, I hoped to have conveyed such acceptance to Chris by following his lead and keeping contact through the techniques of imitation, matching, grounding and incorporating. But it was as though he could not tolerate being on the same page musically with me for more than a few seconds, Chris went straight into

randomness after the scale in Figure 2.19. At this point, I got tired of all the close "chasing" I had done so far, especially in the last 30 seconds where Chris switched from one idea to the next very quickly and sometimes randomly. So I gave up the chase and simply expressed my wish to end the music by presenting a semibreve chord in C major, which is later followed again by a perfect cadence. It seemed that Chris understood the message I conveyed musically, and agreed to comply. He ended in his own way, not timed with my perfect cadence but in his own time, insisting to play the final note of C, which perhaps he had quickly learnt to suit endings.

Chapter 4.2: Findings - "Two Friends' Chat"

This second improvisation was, again, a non-referential instrumental exchange between Chris and I, and it was approximately one minute and 33 seconds in length (track 2 on CD). This time we each preferred a drum – Chris played a tongue drum while I played on a djembe. This was our eighth individual session, and we were more comfortable and familiar with each other.

I: Clinical Notes & Reflections

The session. It was the third session in the second school term. Chris was already waiting in the room when I came back from borrowing a guitar due to a broken string in the previous individual session. I felt rushed and disorganized and forgot to sing a greeting song. Chris was familiar with the routine of choosing from a pack of nine cards to find one that represented how he was feeling that day and this picture below was his choice.

Figure 3.1

Chris' Choice of Card

I was not sure if it suggested tiredness or boredom. Afterwards, I learnt that a caregiver had reported Chris had a restless night. In that case, it was likely that Chris was relating to his state of tiredness due to the lack of sleep. The first activity was a solo

improvisation, for which he played the tongue drum for about 1’44”. It was played at a lively yet comfortable pace, frequently filled by dotted rhythms.

The improvisation. Chris wanted to keep the same instrument for our joined improvisation. I chose the djembe and each of us had one xylophone beater in our hand. Immediately he looked at me as he started playing. As well as offering more frequent and sustained eye contact, he also left me clear spaces to interact and take turns with him. Instead of staying in an imitative exchange, I varied my musical responses to his playing. Sometimes I played short notes and incorporated different ways of playing. So far our playing had been alternate turn-taking, so I decided to challenge him by presenting a non-stop, quick pulse. Surprisingly, he blended his playing with me and was willing to be contained and supported by my pulse. This was the first time it had happened! We were able to play simultaneously in harmony and time with each other while feeling comfortable in the experience. It was quite a meaningful moment and I realized that we had made huge progress since the beginning of term one when we first started. I was happy that these changes happened through non-verbal, non-demanding therapeutic process in improvisations. After listening to playback, I asked him about the sounds and instruments we played. With a cheerful look, he gave a comment, which sounded like “I like it” – different from the repetitive answer he had given me in the past “it’s cool”. I was delighted to see Chris beginning to open up and sustain meaningful contact with me during the session. I was seeing more signs of enjoyment than before, and it was the first time his enthusiasm had been so apparently. He used to sit back on his chair and was very passive. It seemed that he had developed new awareness and sensitivity in our musical relationship.

II: Open Listening

Dotted rhythm seemed to be the predominant element in this extract, initiated and maintained by Chris who mostly played the role of the leader in this improvisation. While I frequently mirrored and imitated Chris' dotted rhythm ostinato, I also sometimes varied my responses to the persisting ostinato. It felt that, since the beginning, I have kept myself musically separate from Chris' playing by presenting my music with volumes, intensities, articulation and durations that were different or contrasting with his music. Turn-taking was well-established between us from the beginning, showing comfortable and flexible musical spaces given by both players.

A change in the interactive dynamic occurred when I challenged Chris by giving him single beats rather than imitating or matching his playing and shortening his turns through these abrupt single-beat statements even when the dotted rhythm persisted for a while. This could be likened to a conversation between us, where I challenged Chris by interrupting his flow in suggesting a change of topic in a firm yet playful matter. I became more musically dominant and eventually took control when Chris stopped momentarily as the playful "arguments" were replaced by my provision of a regular pulse.

This marked a new section when Chris started joining and then sharing the pulse with me. It was as if we had reached an "agreement" musically. During this passage, Chris' initiated a new rhythmic idea characterized by minims and crotchets. Later, imitative turn-taking resumed briefly and so did the dotted rhythm. It was not long until I made attempts to play simultaneously with Chris in reaching the end of the improvisation.

This improvisation might be seen as having three distinct sections, an ABA structure and could be viewed metaphorically as a conversation between two friends. In

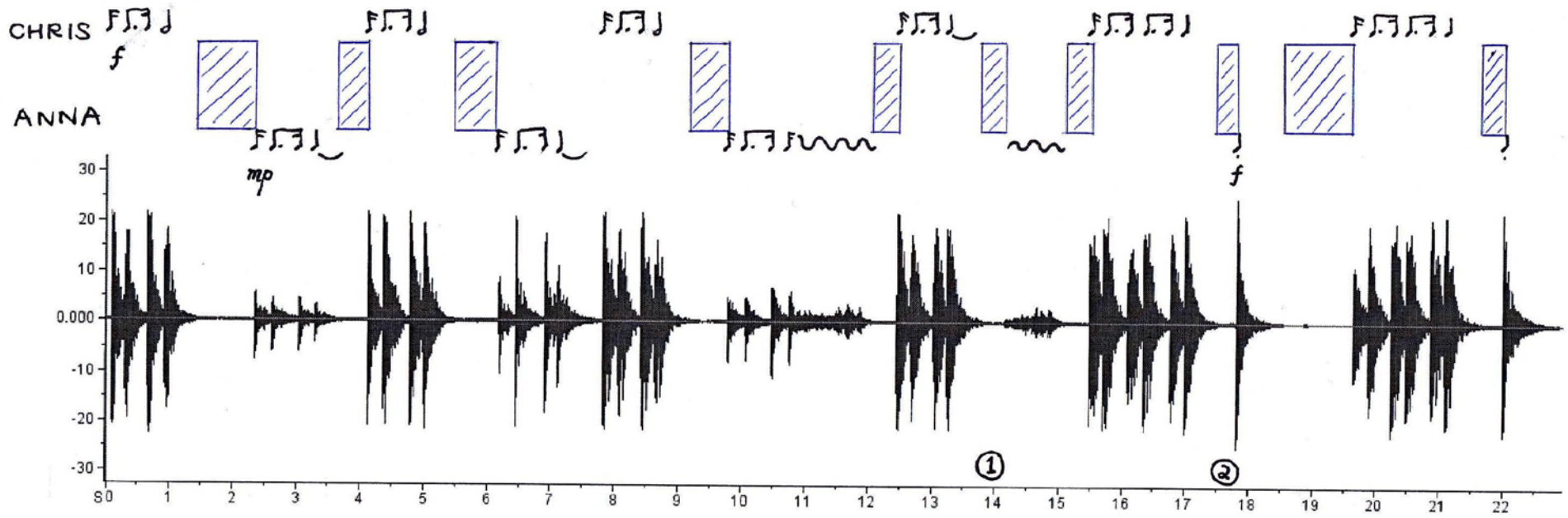
the first section, Chris started talking about something he was interested in while I listened and followed the conversation without fully engaging in this topic. In the second section, it became clear that I wanted to talk about something else, therefore I led Chris to a new topic that we were both familiar and shared much agreement during this discussion. The third section was marked by brief remarks about Chris' old topic from the first section. The conversation came to a close shortly when I suggested that our exchange was enough for that occasion.

III: Notation

A tongue drum is made from wood and contains several melodic tones or notes. The tongue drum used by Chris had six different tones; however, they are not differentiated in the notation. Traditional dynamics, articulation markings, time signature suggestion and rhythmic figures are used to their proximity. The featured symbols are explained below in the order of appearance:

- silence
- a pause until the other player responds
- hand scratching djembe surface
- interactional transitions (see section IV, tabular form for Autonomy profile)
- it points to turn-taking
- it shows overlapping of music (diagonal lines refer to the way two notes are played closely adjacent to each other; straight lines refer to the way two notes are played simultaneously by the players)
- a barline, grouping notes together according to the suggested time signature

The spectrogram shown in the notation involved the use of Raven Lite - a free software that allows its users to record, save and visualize sounds – which has been developed for the study of animal sounds (Cornell Lab of Ornithology: Bioacoustics Research Program, n.d.). The purpose of using Raven Lite was to present the music with an accurate timeline and visualization of the sounds along with conventional music notation.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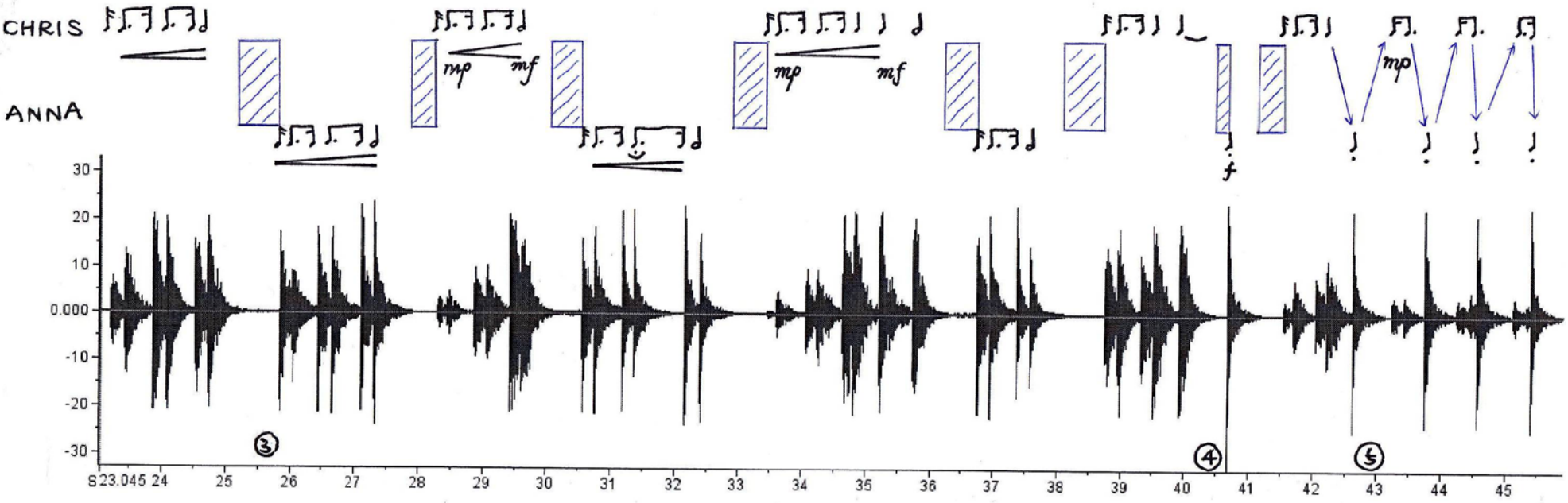
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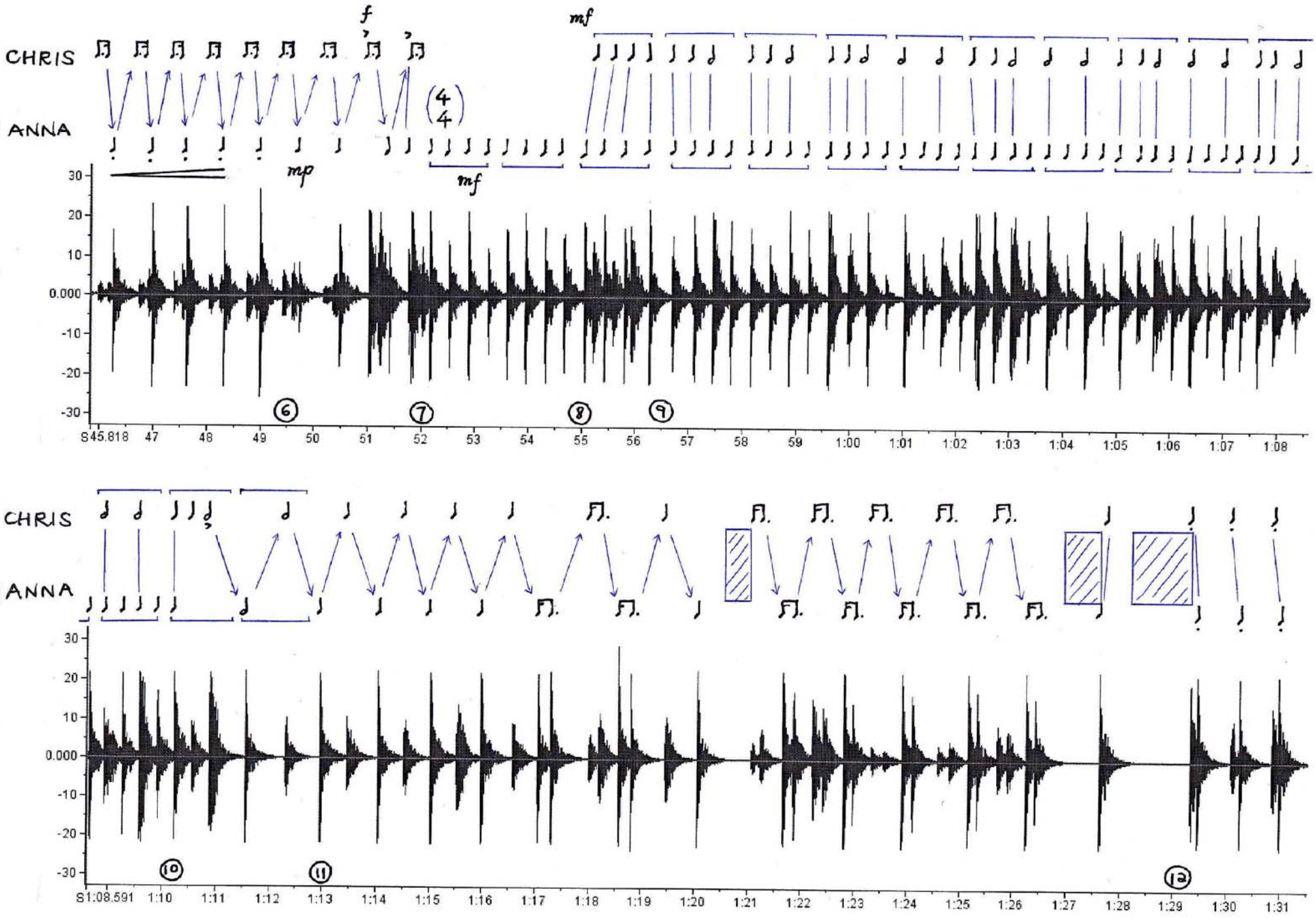
CHRIS
ANNA
f
mf
mp
mf
(4/4)
30
20
10
0.000
-10
-20
-30
S45.818
47
48
49
50
51
52
53
54
55
56
57
58
59
1:00
1:01
1:02
1:03
1:04
1:05
1:06
1:07
1:08
6
7
8
9
CHRIS
ANNA
30
20
10
0.000
-10
-20
-30
S1:08.591
1:10
1:11
1:12
1:13
1:14
1:15
1:16
1:17
1:18
1:19
1:20
1:21
1:22
1:23
1:24
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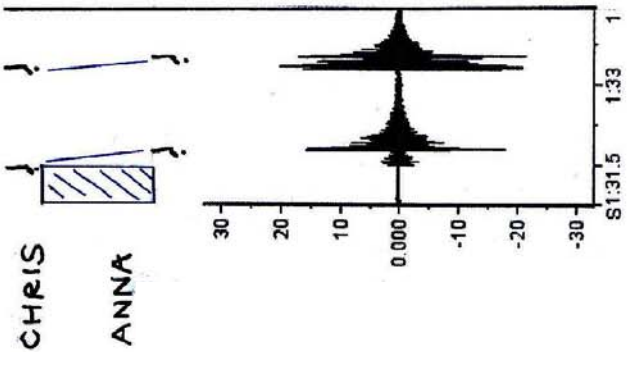
1:26
1:27
1:28
1:29
1:30
1:31
10
11
12


CHRIS
ANNA
30
20
10
0.000
-10
-20
-30
S1:31.5
1:33

IV: IAP Microanalysis

Since aspects of rhythm was identified as a strong element from open listening, rhythmic ground (tempo, metre, subdivisions), rhythmic figure (rhythmic content and themes) and volume which shaped the rhythmic content were selected for the Autonomy profile. Similar scales - tempo, rhythmic figure and volume – were used in the Variability profile. Beside the micro sections that indicated changes in the profiles, this improvisation was also divided into the overall structure of ABA', as suggested from the open listening.

Figure 3.2

Tabular Score for Autonomy and Variability Profile

Autonomy														
Time (in minutes)		0	0:14	0:17	0:25	0:40	0:43	0:49	0:52	0:55	0:56	1:10	1:13	1:29
Dependent	R. Ground	A									C			A
	R. Figure	A												
	Volume													
Follower	R. Ground				A									
	R. Figure				A					C				
	Volume				A					C				
Partner	R. Ground											C,A		
	R. Figure									A		C,A		
	Volume							A						
Leader	R. Ground	C							A	A				C
	R. Figure	C									C			
	Volume	C					A	C		A			A	
Resister	R. Ground			A		A	C,A							
	R. Figure		A			A	C,A							
	Volume	A					C						C	
Sections		A							B			A'		

Variability														
Time (in minutes)		0		0:17	0:28	0:40			0:52	0:55		1:10		
Rigid	Tempo													
	R. Figure					A			A					
	Volume								A					
Stable	Tempo	C,A							A	C		C,A		
	R. Figure	C												
	Volume	C				A				C		C,A		
Variable	Tempo			A		C,A								
	R. Figure	A								C		C,A		
	Volume	A			C									
Contrasting	Tempo													
	R. Figure													
	Volume													
Random	Tempo													
	R. Figure													
	Volume													
Sections		A							B			A'		

Twelve interactional transitions were found from the Autonomy score while six points of change found in the Variability score.

Figure 3.3

Total Frequency of Change in Autonomy and Variability Profile

Autonomy				
	A	B	A'	Total
Chris	7	4	4	15
Anna	14	4	4	22
Variability				
	A	B	A'	Total
Chris	5	3	3	11
Anna	7	3	3	13

In section B and A', Chris and my frequency of change were the same on both profiles. Section A marked a significant difference, as in the Autonomy profile, I changed my roles a total of 14 times, twice as often as Chris. This may be a reflection of my flexibility and experimentation in our role relationships when Chris was reluctant and resistant to making changes.

Figure 3.4

Chris' Frequency of Autonomy and Variability Change in Three Musical Scales

Autonomy: Chris					
	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground	1		1	2	1
Rhythmic Figure		1	1	2	1
Volume		1		2	2
Total: (15)	1	2	2	6	4
Variability: Chris					
	Rigid	Stable	Variable	Contrasting	Random
Tempo		3	1		
Rhythmic Figure		1	2		
Volume		3	1		
Total: (11)		7	4		

The role which was most frequently played by Chris was the leader, and the next was the resister. Both of these roles demanded a high level of control and persistence. On the Variability profile, the overall characteristic of his music was mostly stable and sometimes variable. It indicated that there was a "selective, stable focus, and active efforts to preserve, maintain, and repeat a particular aspect or musical element" while sometimes he showed more flexibility to develop variations and new ideas (Bruscia, pp. 430-431).

Figure 3.5

Anna's Frequency of Autonomy and Variability Change in Three Musical Scales

Autonomy: Anna					
	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground	2	1	1	2	3
Rhythmic Figure	1	1	2		3
Volume		1	1	3	1
Total (22)	3	3	4	5	7
Variability: Anna					
	Rigid	Stable	Variable	Contrasting	Random
Tempo		3	2		
Rhythmic Figure	2		2		
Volume	1	2	1		
Total: (13)	3	5	5		

Similar to Chris, much of my music showed stability and variability, yet sometimes rigidity. This could be related to my frequent role of leader and resister. The dominance of the resister role is characterised by a "continual attempts to evade or destroy any leader-follower relationship with the partner" (Bruscia, p. 447), which was perhaps used in an overall fight for leadership and control from both improvisers. Despite that, musical connection was maintained through both improvisers' efforts to compromise and adapt, which was shown in the fact that both Chris and I adapted the

role of dependent, follower and partner at various points throughout the improvisation. The role characteristics and variability levels in each section are shown in the following graphs.

Figure 3.6

Chris' Frequency of Change in Autonomy across Three Sections

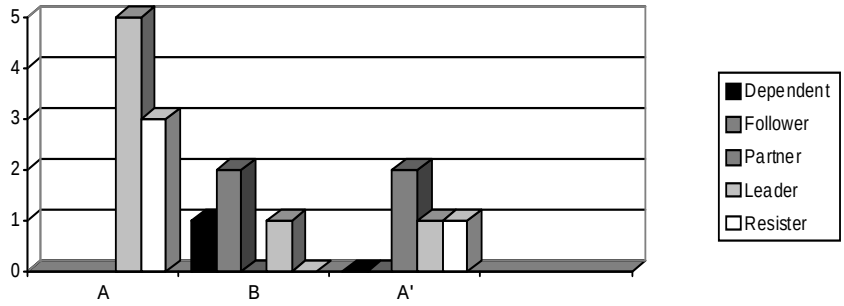


Figure 3.7

Chris' Frequency of Change in Variability across Three Sections

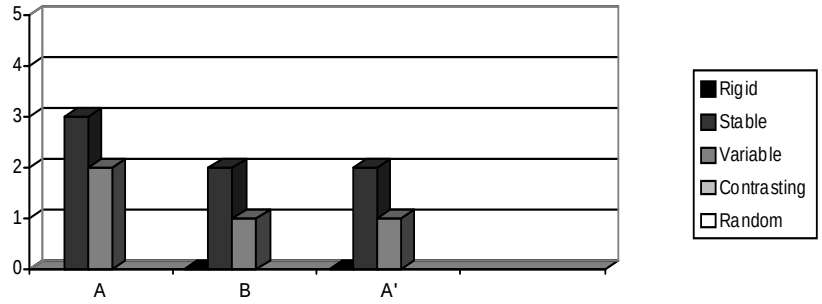


Figure 3.8

Anna's Frequency of Change in Autonomy across Three Sections

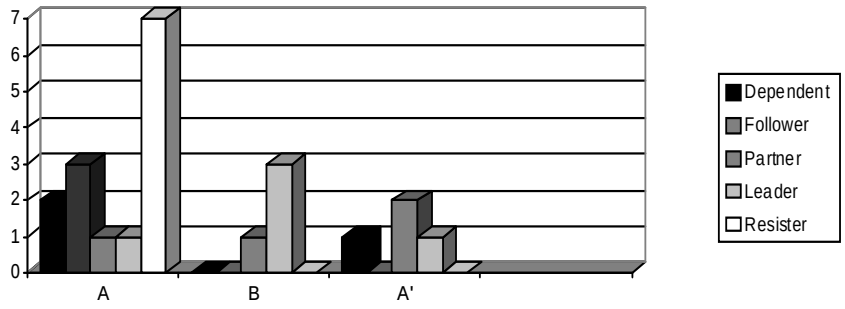
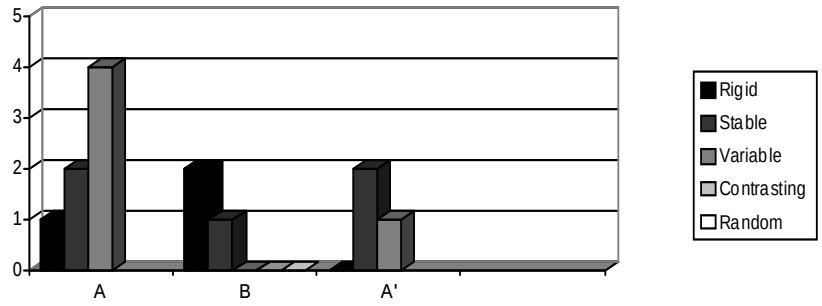


Figure 3.9

Anna's Frequency of Change in Variability across Three Sections



In section A, Chris took up the leadership role by establishing and maintaining his rhythmic motif, despite my attempts to resist such leader-follower relationship. Although Chris sometimes switched to the resister, I was able to vary between the five different roles within this single section in response to his persistent leadership. My music also showed more variability in rhythmic content and tempo to initiate changes of roles. Section B was very short in length, but big changes occurred in role relationships, as Chris allowed me to gain more control by following and depending on my lead. Chris' level of variability stayed much the same, although my part showed rigidity particularly

in rhythmic figure to maintain my leadership role. And the last section was marked by an emerging partnership between both improvisers.

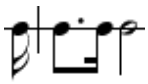
V: Description and Interpretation

Although Chris communicated his sense of tiredness early in the session, his energy and enthusiasm seemed unaffected in music therapy context. Chris began playing the tongue drum with a beater in a lively pace with loud volume and introduced his dotted rhythm motif, which came from his earlier solo improvisation using the same instrument. Besides leaving clear spaces for me to join in with my djembe, Chris' initiation of eye contact also gave me cues of his interest in interactions. Throughout section A, which was 51 seconds in length, Chris and I engaged in consistent turn-taking. Chris' leadership role was established from the start by giving directions in tempo, meter, rhythmic motif and volume for me to follow and imitate. His music was consistent and persistent, characterized by stability in tempo, rhythmic theme and volume. As Chris continued to repeat, maintain and develop variations on his dotted rhythm motif during the first 40 second of turn-taking (see Figure 3.10), I made my first attempt to break out of the leader-follower role pattern firstly by playing at a contrasting dynamic, secondly by introducing a different articulation of scratching the drum, and then by playing a sudden, loud and detached crotchet in refusal to imitate Chris' dotted rhythm.

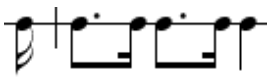
Figure 3.10

Chris' Dotted Rhythm Motif and Developments in Section A

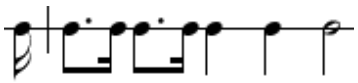
a) Repeated four times from 0:00 to 0:13



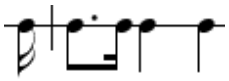
b) Repeated four times from 0:15 to 0:29



c) Played once at 0:33



d) Played once at 0:38



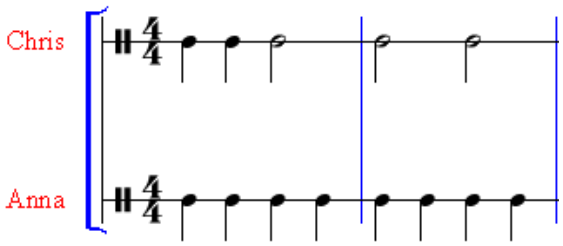
Chris seemed unaffected by my resistance, but he started playing his rhythmic motifs with crescendo (*mp* to *mf*) from 0:23 to 0:39. This was also where I settled as a follower, imitating his motif. The next 12 seconds marked my second attempt to challenge Chris' leader role. As both of us tried to maintain our own ideas, we both became a resister. Chris' dotted motif, played in *mp*, were consistently cut off by my persistent crotchets played with full volume as this turn-taking accelerated and built up to a crescendo. Then for a brief moment, I backed down in volume and Chris increased his volume repeated the short dotted quaver rhythm with accents before suddenly stopped playing. This was the start of section B, where I was left to establishing a fast pulse by

myself, wondering whether Chris would work with or against my containment which provided the rhythmic ground.

After two sets of four beats I played, Chris joined in with crotchet beats, trying to synchronize with my pulse. Soon, Chris not only was able to play crotchet beats simultaneously with me, he also provided a 4/4 time when introducing a new rhythmic motif consisted of crotchets and minims (see Figure 3.11). These 18 seconds in section B was the highlight of this improvisation in the sense that it was, what I recalled, the first time we played in simultaneous partnership in an improvisation. It was considered a particularly meaningful moment, taking into account the process it took for both of us before reaching this musical agreement or neutral ground.

Figure 3.11

Chris' New Rhythmic Motif on Top of my Pulse



Turn-taking resumed at the start of section A' as soon as I stopped giving pulse. This section lasted for 23 seconds, during which both Chris and I were more flexible and less demanding in our role relationships. The sense of partnership continued through the exchanges and imitations of minims and crotchet beats, and later on, the dotted quaver motif. Before reaching the end, there were a passage of ten seconds where the quick dotted quaver dominated – I repeated it seven times, and Chris six times. However, its occurrence differed from that of section A, because even though I started it this time,

Chris was no longer persistent with it. At one place in this ten-second passage he played a crotchet in response to a dotted quaver motif, and he also initiated a break from it by leaving a brief silence to suggest a musical ending with me through simultaneous playing. Some gesturing and non-verbal cues were involved when trying to synchronize the five ending notes together, which were led by Chris.

This was a significant improvisation, for Chris was able to initiate and also sustain meaningful contact with me during our interactions. I was encouraged by the amount and positivity of Chris' non-verbal cues, particularly the frequency and timing of eye contact and cheerful facial expression. Eventually, Chris also gave a positive verbal comment about the improvisation: "I like it". This improvisation seemed to bear the characteristics of two friends engaging in their own process of getting to know each other through a musical conversation. Within such process, perhaps their best advantage was the sense of trust between them that allowed risk-taking, growth and flexibility to take place.

Chapter 4.3: Findings - "A Goodbye Song"

This was the most dynamic improvisation of this study, as Chris and I engaged in a song improvisation towards the end of our 19th individual session using both voice and melodic instruments. I was singing with keyboard accompaniment, and Chris was playing a melodica (which consisted of an octave of diatonic scale starting from the middle C) as well as responding several times with his speaking voice. The improvisation took about one minute and two seconds (track 3 on CD).

I: Clinical Notes and Reflection

The session. Chris came to the music room sooner than expected and it appeared that he had been running. This was the second time it happened. Usually he would leave his classroom when the student I see before him gets back from the music room, which is a few blocks away from their classroom, but recently he has been showing up closely after the previous student left the music room. Perhaps he was feeling ready or eager to participate in music sessions.

He played on a chimebar to communicate how he was feeling, and confirmed that I understood his communication. The feeling he identified through the choice of card could be related to anxiety, as seen in Figure 4.1. We interacted briefly about this feeling. He showed me a facial expression related to this card, like he was biting into his teeth. It was good to see him open to talk about how he was feeling.

Figure 4.1

Card of Chris' choice

In this session, Chris was introduced to the melodica for the first time. I realized from the previous sessions, that exploring new instruments can take place and become as enjoyable as a free improvisation without associating with any theme. Chris looked really eager to try it out. He also took the initiative to say what he thinks of it by asking: “can I call it piano flute” and also “I like it” during exploration and goodbye song. He experimented the ways he can blow air into the melodica, several times without pressing any key, then he held his breath and blew into the melodic for as long as he could, until his face was turning red and he was out of breath. He seemed to enjoy this physical experimentation although he knew he could only make sounds by pressing keys on the melodica. Later he tried playing varying numbers of keys simultaneously on the melodica, exploring different combination of notes, including pressing down all the keys at the same time. Chris was invited to continue playing the melodica in an improvised goodbye song.

The improvisation. As I offered him the melodica to accompany the goodbye song, I said: “you probably can’t say goodbye at the same time…” and he interrupted me, saying “I can” and blowing a note of *D* before stopping to say the word “goodbye” to prove his point. I commented on how clever he was to think of that. I was quite surprised by this quick verbal and interpersonal response. I saw a good level of engagement and confidence from him. We played together as I sang goodbye, the timing of our singing and playing did not seem to come together in an organized structure, but we were finding our own way of responding to each other through music and words, so in a way it was okay and our music was a fair reflection of that. He ended on a *C* note showing good intuition for tonality and said after playing it he liked the melodica.

I was encouraged to see Chris' eagerness to interact with me and to give increased verbal feedback voluntarily. It was always been fun for us to engage in exploring new instruments and interesting to see as he came to know the instrument how he would use it to communicate musically. My goal was to encourage more vocalization and verbalization and hopefully by introducing him to instruments that require breathing, he will start using his voice more often. The melodica's tone shared similarity with the harmonica in the sense that on both, sounds are produced by blowing, it almost seemed that the melodica was singing for Chris, who was not confident enough with his own vocalizations and use of words in singing.

II: Open Listening

This was an example of harmonious collaboration. I wondered if, purely by listening to this improvisation, would a listener (other than myself) think that I was singing from an existing goodbye song familiar to Chris, and Chris also knew the tune on the melodica? A listener might not suspect that Chris was playing an unfamiliar instrument for the first time, nor the fact I was totally unsure of how the music would unfold. There was also a big difference in my perception between when I wrote the clinical notes about this improvisation and when I listened to it after a period of time. At the time of therapy, the music did not sound or feel "organized" to me. It was very much just another improvised song that worked out okay. Despite that I was happy about Chris' positive progress when relating to me in the music therapy context. My perceptions changed when time allowed me to distance from the music therapist role, and later I perceived this song as being, in a sense, quite organized, even though much of it might have happened by chance or intuition rather than conscious efforts.

I struck a C major chord to provide tonal ground, and then Chris gave away the starting phrase. He paused so I could join in, singing the first two notes he played in the starting phrase. The pace of this song was fairly slow. The time was flexible showing no sense of rush nor anxiety from both improvisers. I paused my singing and accompaniment when I wanted Chris to fill in missing words, including “goodbye” and “next time”. He picked up those cues appropriately. When singing had finished, I went on to an instrumental ending, which was matched by Chris’ intuitive musical partnership. It was a moment when I felt the level of musical connection was spontaneous and strong that we both moved together towards the same directions without explicit cues.

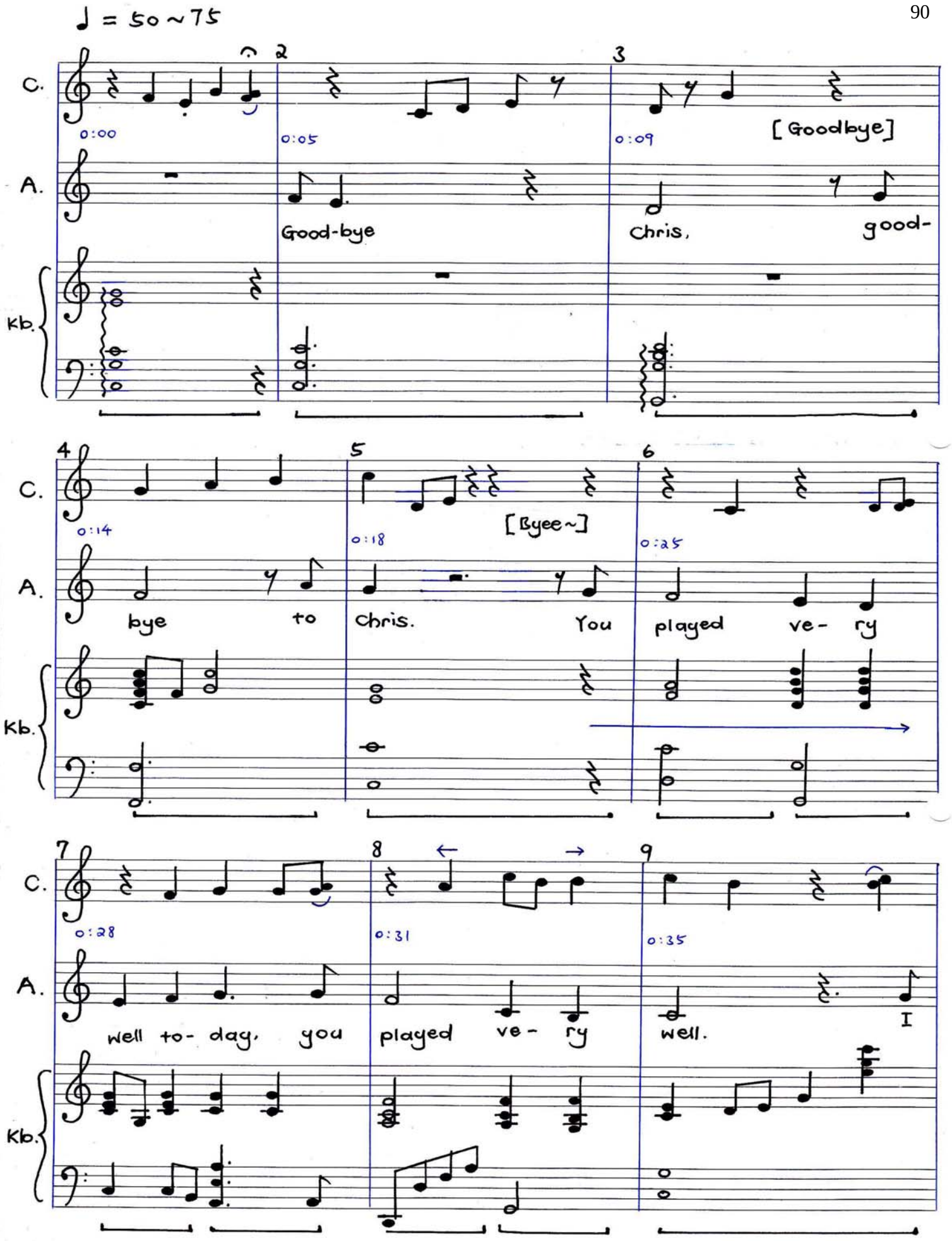
The overall impression of this improvisation was a sense of “togetherness”. The fact that Chris and I shared quite a lot of melodic notes especially at the end of phrases, it made me wonder if it was mere chance or intuition from both of us. Nevertheless, this improvisation highlighted a musical collaboration, which felt comfortable, free and connected. This was a contrast from the feeling Chris identified earlier at the beginning of the session, and perhaps an indication of the positive effects music therapy had made. The music-making as well as the trusting relationship that had been developed seemed to help Chris work through his feelings of anxiety.

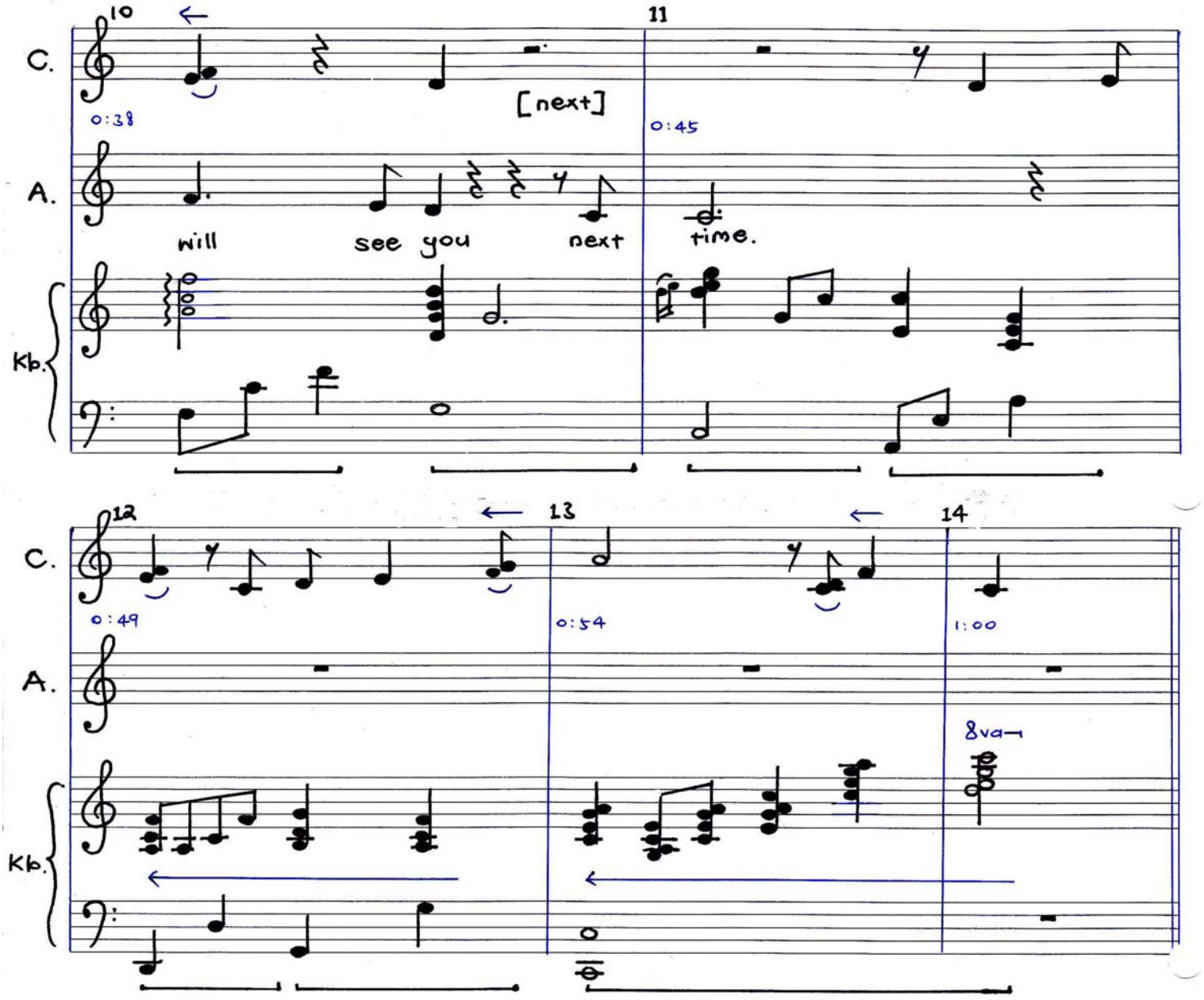
III: Notation

Overall, time signature was loose and flexible in the beginning, but stabilized into 4/4 from bar six onwards. The bar lines divided the music fairly evenly in this short improvisation, and bar numbers were used for reference of change rather than the unit of seconds in the microanalysis.

- Keyboard pedal
- Lower note played first and sometimes overlap with top note
- [ ] Spoken words
- Acceleration of tempo
- Slowing down of tempo
- Played with slight haste within the tempo
- Played with slight delay within the tempo

The audio file of this improvisation on the compact disc was edited to avoid recognition of Chris' real name through my singing. However, his speaking voice remained untouched, as it was considered his communicative response.


♩ = 50 ~ 75
C.
A.
Kb.
0:00
0:05
0:09
[Goodbye]
Good-bye
Chris,
good-
0:14
0:18
0:25
[Byee~]
bye
to
Chris.
You
played
ve-
ry
0:28
0:31
0:35
well
to-
day,
you
played
ve-
ry
well.
I


10
11
C.
0:38
[next]
0:45
A.
will
see you
next
time.
Kb.
12
13
14
C.
0:49
0:54
1:00
A.
8va
Kb.

IV: IAP Microanalysis

This was a different type of improvisation from others in this research, involving singing voice and two melodic instruments. Therefore the scales chosen for analysis were more focused on the melodic and/or tonal aspect than the rhythmic. The rhythmic aspects were analysed through rhythmic ground in Autonomy and metre/subdivision in Variability profile and the rest of the scales in both profiles examined phrasing and melody or melody as well as tonal implication.

Figure 4.2

Tabular Score for Autonomy and Variability Profile

Autonomy															
Bar number		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Depen-dent	R. Ground														
	Tonal/Melodic														
	Phrasing														
Follower	R. Ground						C								
	Tonal/Melodic						C								
	Phrasing														
Partner	R. Ground	A	C											A,C	
	Tonal/Melodic	C,A													
	Phrasing							C							
Leader	R. Ground	C					A								
	Tonal/Melodic						A					C			
	Phrasing	C	A									C			
Resister	R. Ground														
	Tonal/Melodic														
	Phrasing														
Section		A					B					C			

Variability															
Bar number		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Rigid	Metre/Subd.														
	Melodic														
	Phrasing														
Stable	Metre/Subd.						A								
	Melodic	A													
	Phrasing	A					A								
Variable	Metre/Subd.	A										C			
	Melodic											C			
	Phrasing											C			
Con-trasting	Metre/Subd.														
	Melodic														
	Phrasing														
Random	Metre/Subd.	C													
	Melodic	C													
	Phrasing	C													
Section		A					B					C			

From the activities on both the Autonomy and Variability score, bar 1, 6 and 11 marked points of change - these bars divided the improvisation into three sections (ABC) of similar length.

Figure 4.3

Frequency of Change in Autonomy and Variability Across Three Sections

Autonomy				
	A	B	C	Total
Chris	4	3	3	10
Anna	3	2	1	6
Variability				
	A	B	C	Total
Chris	3		3	6
Anna	3	2		5

More changes were seen from the Autonomy score than Variability. Both profiles showed that I made less and less change(s) as the improvisation progressed from section A to C (Figure 4.3). Perhaps it was an indication of a growing certainty of the musical direction once I picked up ideas to work with from Chris' melody. Chris' frequency of change was quite different from mine. He made changes during section C in Autonomy and Variability almost as much as section A. And in section B there were no changes in Variability yet consistent changes in role relationships. These could reflect Chris' ease in adapting new roles and/or varying his musical elements throughout the process.

Figure 4.4

Frequency of Autonomy Change in Three Musical Scales

Chris	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground		1	2	1	
Tonal/Melodic		1	1	1	
Phrasing			1	2	
Total: (10)		2	4	4	
Anna	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground			2	1	
Tonal/Melodic			1	1	
Phrasing				1	
Total: (6)			3	3	

No roles in either end of extreme were used by either improviser in Autonomy. As seen in Figure 4.4, we both adapted the leader role in rhythmic ground, tonality/melody and phrasing with similar frequency although Chris sometimes played the follower role while I maintained leading or partnering. The partner role was also important for both of us, especially in establishing aspects of tempo, metre and subdivision (which were the elements of rhythmic ground).

Figure 4.5

Frequency of Variability Change in Three Musical Scales

Chris	Rigid	Stable	Variable	Contrasting	Random
Metre/Subdivision			1		1
Melody			1		1
Phrasing			1		1
Total: (6)			3		3
Anna	Rigid	Stable	Variable	Contrasting	Random
Metre/Subdivision		1	1		
Melody		1			
Phrasing		2			
Total: (5)		4	1		

The table above showed that Chris and I made similar number of changes in variability, but in different directions. My music was mostly stable and his was variable and other times random in all three musical parameters. Here are the graphs showing our Autonomy and Variability activities across section ABC.

Figure 4.6

Chris' Frequency of Change in Autonomy Across Three Sections

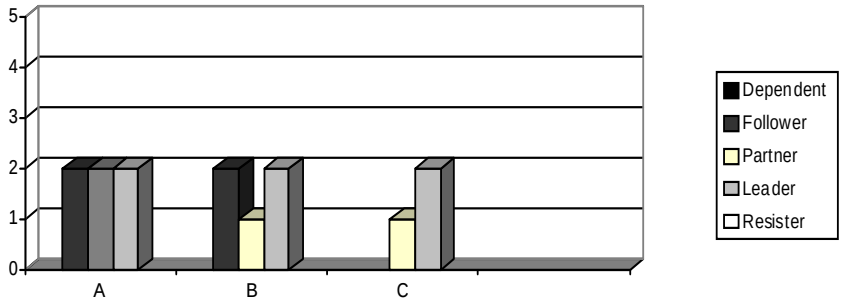


Figure 4.7

Anna's Frequency of Change in Autonomy Across Three Sections

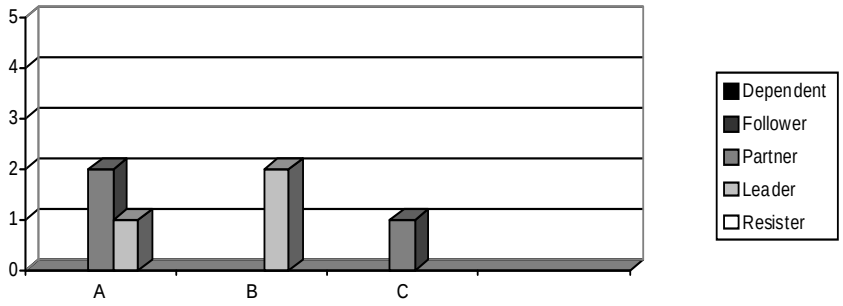


Figure 4.8

Chris' Frequency of Change in Variability Across Three Sections

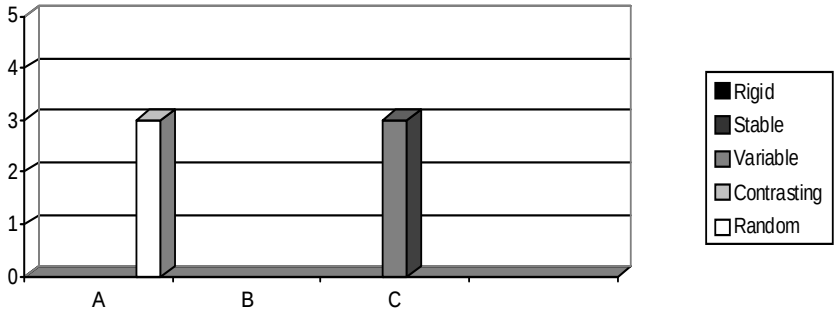
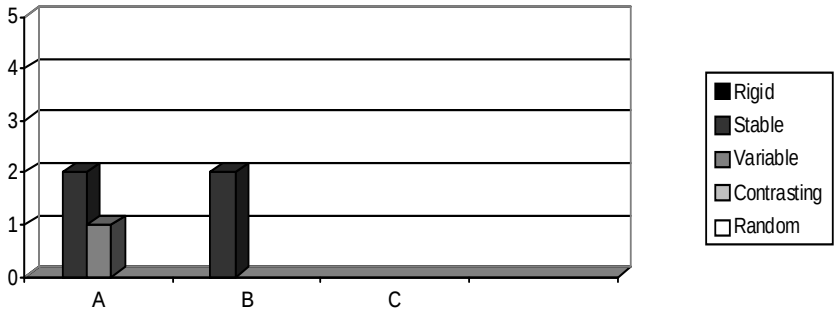


Figure 4.9

Anna's Frequency of Change in Variability Across Three Sections



Section A opened with Chris' melody, which was perceived to be random – could be related to the exploration of the new instrument and to the discovery of ways to collaborate with me musically. Chris seemed to be flexible in changing his roles between being a follower, partner and leader while playing alongside with my consistent, stable leader role. In section B, Chris' part stayed much the same in overall role flexibility and high level of variability and my part also showed continuous leadership and stability. Chris' music became variable but not random in the final section as he dominated as a leader while I incorporated a partner role.

V: Description and Interpretation

Goodbye songs had always been a tricky part for me to engage Chris since he would not participate vocally. In the beginning of therapy, I would sing goodbye songs to Chris, but the lack of interaction had always troubled me - it seemed that he was just tolerating the song and waiting to be "released" from therapy. Inviting him to contribute through instrumental playing had changed this dynamic for both of us. I switched from singing pre-composed goodbye songs to spontaneous improvising as Chris would be invited to play an instrument. This clinical solution came about when I realized the exploration of instruments seems to have always given Chris enjoyable means to communicative and meaningful interactions with me. It had been a successful way to turn our goodbye song from one-way to two-way "traffic" in music.

This improvised song was significant not only in the sense that I had grown from learning as a clinician, but also that Chris had grown in his ability to interact with me musically and flexibly with his instrument. In comparison to the improvisation in chapter 4.1 "The Visitor" where Chris spent most time relating to the object (xylophone), this improvisation marked a positive progress as he was able to relate successfully with the new instrument as well as me. This was perhaps what Alvin would refer to as the second stage of the therapeutic process: "relating to self and therapist" (Alvin, 1978). She also highlights the techniques of improvising duets, introducing and sharing new instruments, establishing an equal-term relationship during this stage of relating (ibid).

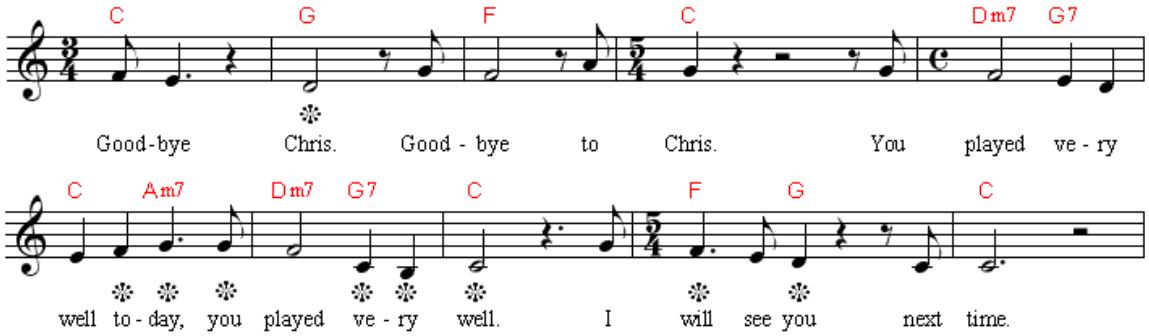
Regarding Chris' music which sometimes touching the *random* side on the Variability profile, Bruscia's description of the random gradient refers to "an unlimited range of change possibilities, a lack of focus, and an absence of any efforts to preserve,

maintain or repeat previous materials" (p. 431). Chris' music sometimes categorised to this level of variability meant that what he played – in terms of metre/subdivision, phrasing and melody – was not used thematically in this improvisation. In other words, he was playing freely and spontaneously, leaving much to chance or intuition - as playing an unfamiliar instrument in an improvising situation would demand from anyone. His playing could be perceived as random even though we sometimes happened to play or sing the same notes at various moments. Much of it seemed to be due to chance, because he could not have known what I was going to play next, just as I did not know what was coming next. The most fascinating facet of improvising was not knowing what would happen and yet still engaging in the moment.

Working with the element of chance and spontaneity, Chris and I made musical connections through sharing common and/or matching notes during this song. For example, he played the same notes as those I sang – either same range or an octave higher – as marked by asterisks in Figure 4.10.

Figure 4.10

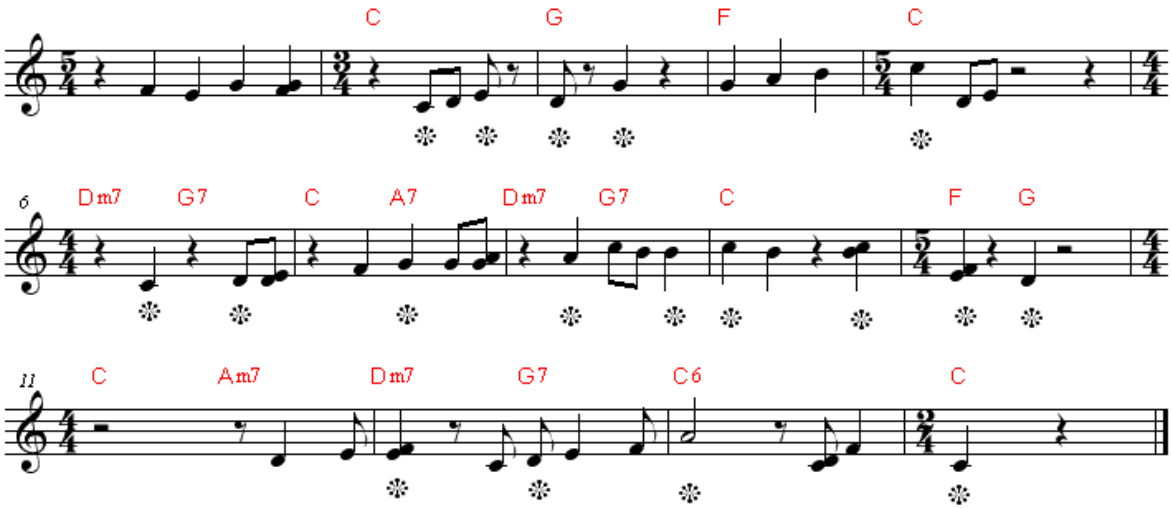
Chris and I Sharing Common Notes



There were also a number of instances when Chris' melodic notes fit in the harmonic progressions I was providing. The instances marked by asterisks in Figure 4.11 were those Chris played with a sense of certainty, intentionality and/or they were played in good timing with my accompaniment.

Figure 4.11:

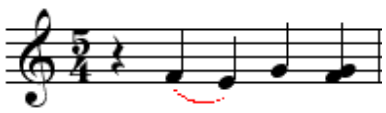
Chris' Notes That Matched My Chords



Regarding my part of the improvisation, much effort was made to engage and connect with Chris. At the beginning, I gave a C-major chord but was unsure how to start the goodbye song. Chris initiated this short phrase, which I decided to incorporate into my tune by using the descending, stepwise movement (marked by slur in Figure 4.12) to form the basis of the rest of this song.

Figure 4.12:

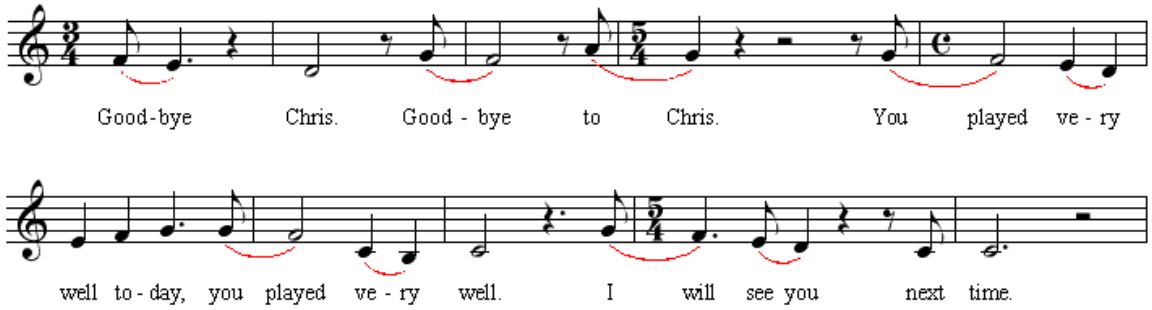
Chris' Opening Phrase



In the following example, the slurs show where the above melodic idea was incorporated into my melody.

Figure 4.13:

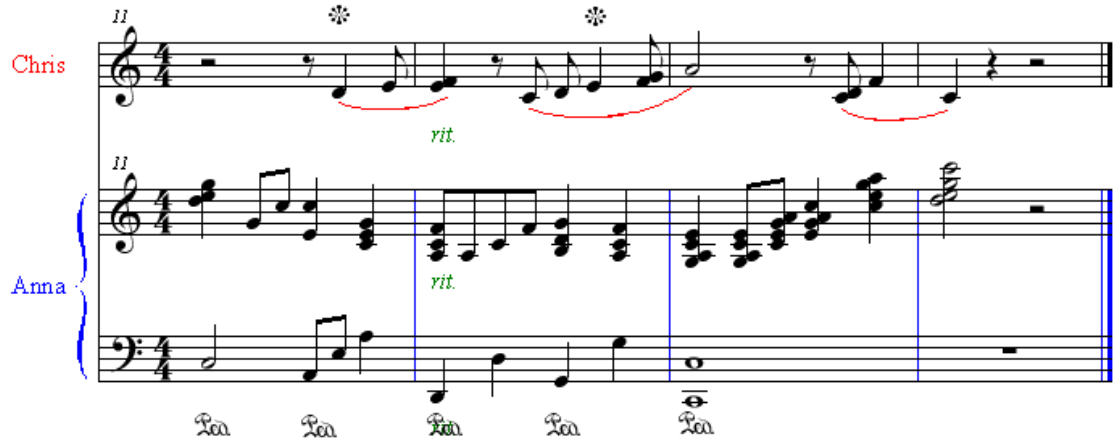
Chris' Melodic Idea Incorporated in My Part



Another important point of connection for us was how we worked together towards the ending. Even though my singing had just finished in bar 11, Chris was aware that I wanted the music to continue. He responded intuitively by continuing to play and by giving melody to my accompaniment, as seen below.

Figure 4.14:

Chris' Melody Towards the End



The phrasing and shape of his melody seemed quite clear. There seemed to be two phrases, each showing a rising contour, before the melody goes down in the third phrase onto the tonic note *C* at the end. The asterisks mark the syncopation in Chris' first two phrases that complemented my accompaniment and gave the ending a distinctive charm. As we slowed down together, staying "in tune" with each other as we approached bar 13, I was going to end on a straight C-major chord. But when the note *A* was sounded strongly from Chris, I immediately accommodated it into my chord as an added sixth. Soon after, he also found the tonic note that he always used in ending his improvisations.

This was a different type of improvisation from the others - it was referential in the sense that parting songs served a clear purpose and function. My singing, in this case, was important in bringing the session to a closure by facilitating appropriate verbal responses (saying "goodbye"), while my accompaniment served as a harmonic containment for Chris' exploration on the melodica. Even though chance seemed to play a role in this musical collaboration, but the unmistakable sense of awareness and engagement from both Chris and I were intentional and apparent in this analysis.

Chapter 4.4: Findings - "On a Hot Day"

Session 25 was towards the very end of my music therapy journey with Chris. The improvisation was short –about 37 seconds in length (track 4 on CD). There was an element of experimentation in this session as Chris and I shared the cymbal - he played it with a cabassa and I played with a padded bass drum stick.

I: Clinical Notes and Reflection

The session. This session was on a different day of the week from our usual music therapy routine, and also we had to use the small dark room within the unit instead of our usually big and quiet space in a different block of the school. Chris sat across the lazy-boy chair sideways with his legs on one arm of the chair. He did not seem keen on doing much. I asked if he was okay, and he said: "it's hot". I opened the windows and sang about what we could do on a hot day. He repeated my phrases without giving a reply. Therefore I suggested that we could take some instruments outside to play and he went along with it. I let him choose which spot he would like to go, and he pointed at the garden right outside his classroom. He chose to take a cabassa, and I took the cymbal with some beaters, guitar and the recording device. We sat on the grass. First, he wanted to improvise by himself. He turned the cabassa towards the recorder, turning the beads loudly. Afterwards he listened to what he played. Nearby, some students started making noises from mini motorbike projects, which was a little distracting.

The improvisation. There were two parts to the improvisation. The first was recorded and replayed, and the second was free play, unrecorded. The first part was short and quite structured. In the second part, I initiated finding different ways of playing the cymbal, and he showed some different ideas, such as using the opposite end of the beater,

wearing the cymbal on his head while I played with my hands, as well as holding the cymbal like a barrier between us. During our unrecorded improvisation, he did look at me at the beginning as I waited to come in. Also, at times when he wanted to make a loud noise, he would give me eye contact and do a physical gesture as if to check with me. In those instances, I gave him a go-ahead look. After exploring the cymbal, he asked: “can we just…” communicating his wish to finish the session. He allowed me to sing goodbye before going back to the unit. We took the instruments back to the dark room, and I reminded him to take one sticker (which had my picture on it) off our chart, which was designed for the end-of-therapy closure process. Before he left, he looked at me, and gave me a firm hand shake.

Chris’ reasons to stop the session could have been related to a number of factors: He was not used to having music at a different day of the week, he was not used to doing music in the outdoor when other people might see us, he was sensitive to the motorbike and/or other noises, or perhaps the sounds of the cymbal became too intense. Of course, there was also an element of closure that could be difficult to cope. It was, in fact, the second time he has requested to end the session - the first time was in session seven, when he seemed to be frustrated with learning a tune on the xylophone, saying “it’s hard”. In both cases, Chris did not seem distressed or upset after the session, as he would be his usual self in group session which usually was in the afternoon of the same day. However, it was a bit difficult for me to deal with Chris choice to end music, as I tend to take it quite hard on myself, feeling rejected while wondering what exactly had happened, why he reacted in certain ways and what else I could have done. The positive things were that Chris was able to effectively communicate his wish to me and his freedom of choice was

respected. Even though his choice was not what I expected, I felt that I have done my best to be flexible and sensitive to his needs.

II: Open Listening

This improvisation was quite straightforward in terms of its interactive pattern. It consisted of continuous, alternate turn-taking between two improvisers throughout. The cymbal made a unique soundboard for this interaction. The ringing tone sometimes sustained at an intense frequency even after each improviser finished his/her turn. This could also be affected by the position of the recording device. In the open, outdoor space, the ringing of the cymbal might have been less intense to Chris and me. Due to this ringing quality of the cymbal, it probably meant that there were rarely moments of complete silence between our turns.

While Chris could play his chosen instrument - the cabassa - he chose to play the cymbal with the cabassa. That was an interesting choice and perhaps a gesture of willingness to interact with me. The first rhythm I initiated with a drum beater sounded like an urgent door knocking. But when Chris came in, his sounds were easily differentiated from mine, with the beads of cabassa brushing, sometimes sliding toughly against the cymbal surface, adding a new “colour” to this musical palette. The short rhythmic motifs used by both improvisers were simple and similar – most could easily be grouped in 4/4 time.

The length of the music from Chris was untypically short for a joint improvisation, which would usually take at least one minute and thirty seconds. Nevertheless, the consistency of the turn-taking gave the impression that both improvisers were engaged and sustained good level of musical connection even just for a short and simple

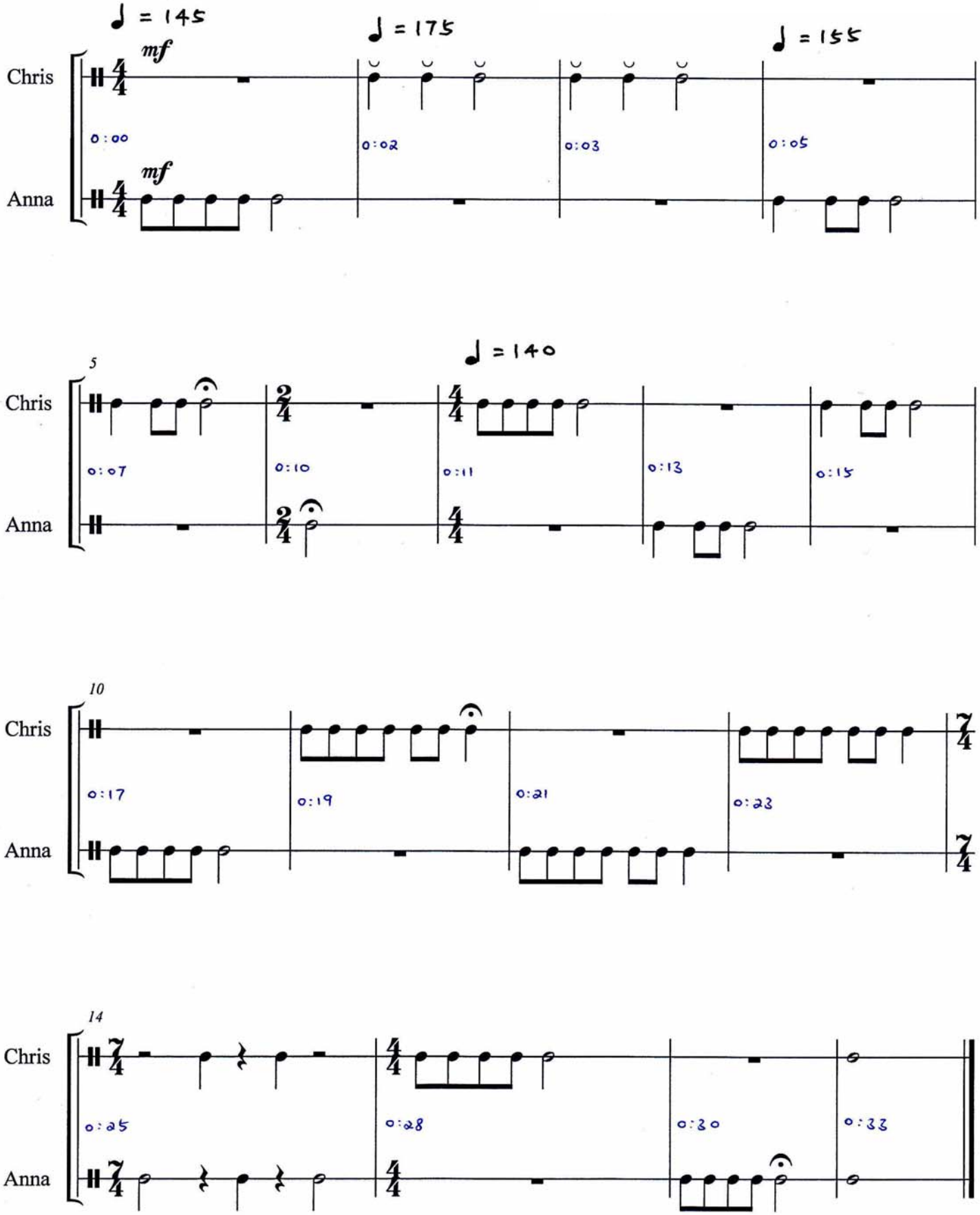
improvisation. Even though the process of closure had not been easy for either Chris or me, it was still positive to recognize his ability to relate and sustain contact in music with me in this improvisation.

III: Notation

There were no apparent dynamic changes as both parts sounded consistent throughout. Four points of tempo changes were identified at the beginning. The rhythmic content could be grouped in 4/4 time in most instances despite there were sometimes pauses between turns and also loose single notes. The slight differences in articulation or tempo were these:

- Sound of cabassa brushing lightly on cymbal in Chris' part (when not marked, the cabassa were used to beat the cymbal)
- Played with slight haste within the tempo

Since the bar lines divided the whole improvisation fairly evenly - as the length of each bar was typically two seconds - bar numbers were used in the microanalysis as points of reference.


♩ = 145
mf
Chris
0:00
mf
Anna
♩ = 175
0:02
0:03
♩ = 155
0:05
5
♩ = 140
Chris
0:07
0:10
0:11
0:13
0:15
Anna
10
Chris
0:17
0:19
0:21
0:23
Anna
14
Chris
0:25
0:28
0:30
0:33
Anna

IV: IAP Microanalysis

Rhythmic ground (which focused on the tempo), rhythmic figure and phrasing were selected for the Autonomy profile. For Variability, the parameters were essentially the same – tempo, rhythmic figure and phrasing. The improvisation was divided into three sections of similar lengths.

Figure 5.1

Tabular Score for Autonomy and Variability Profile

Autonomy

Bar Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Depen-dent	R. Ground																	
	R. Figure																	
	Phrasing																	
Follower	R. Ground								A									
	R. Figure																	
	Phrasing																	
Partner	R. Ground														A,C			
	R. Figure				A	C		C			A				A,C			
	Phrasing														A,C			
Leader	R. Ground	A	C		A			C								C		
	R. Figure	A	C															
	Phrasing	A	C		A			C										
Resister	R. Ground																	
	R. Figure																	
	Phrasing																	
Section		A						B						C				

Variability

Bar Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Rigid	Tempo																	
	R. Figure																	
	Phrasing																	
Stable	Tempo							C	A									
	R. Figure																	
	Phrasing	A						C										
Variable	Tempo	A																
	R. Figure	A,C										C	A					
	Phrasing	C													A,C			
Con-trasting	Tempo		C															
	R. Figure																	
	Phrasing																	
Random	Tempo																	
	R. Figure																	
	Phrasing																	
Section		A						B						C				

From the first glance of the Autonomy score, both improvisers appeared equally active in engaging the leader and partner role. Compared to Autonomy, there was

generally less transition or change in levels of Variability. These were also shown in the table below.

Figure 5.2

Total Frequency of Change in Autonomy and Variability Across Three Sections

Autonomy				
	A	B	C	Total
Chris	4	3	4	11
Anna	6	2	3	11
Variability				
	A	B	C	Total
Chris	3	3	1	7
Anna	3	2	1	6

Chris and I shared the same total number of changes in Autonomy, and had similar frequency of change in each section. The slight differences suggested that I was more active than Chris in making role changes in the opening section whereas Chris was slightly more active within section B and C. In Variability, we also made similar number of changes, which overall decreased in section B and C.

Figure 5.3

Frequency of Autonomy Change in Three Musical Scales

Chris	Dependent	Follower	Partner	Leader	Resister
Rhythmic Ground			1	3	
Rhythmic Figure			3	1	
Phrasing			1	2	
Total: (11)			5	6	
Anna	**Dependent**	**Follower**	**Partner**	**Leader**	**Resister**
Rhythmic Ground		1	1	2	
Rhythmic Figure			3	1	
Phrasing			1	2	
Total: (11)		1	5	5	

Both Chris and I seemed to be strong and consistent with the partner and leader role. Chris' leadership role was most prominent in tempo and mine was spread more evenly across all three parameters. It was interesting to note that our scores under *partner* were exactly the same – suggesting an equal partnership in tempo and phrasing, and most frequently in sharing rhythmic themes. This sharing of rhythmic themes was also traced in the table below, where both of us had the same scored under *variable* especially in rhythmic figure.

Figure 5.4

Frequency of Variability Change in Three Musical Scales

Chris	Rigid	Stable	Variable	Contrasting	Random
Tempo		1		1	
Rhythmic Figure			2		
Phrasing		1	2		
Total: (7)		2	4	1	
Anna	Rigid	Stable	Variable	Contrasting	Random
Tempo		1	1		
Rhythmic Figure			2		
Phrasing		1	1		
Total: (6)		2	4		

A good level of flexibility was implied, as both parts were predominantly *variable* when not *stable*. Chris' flexibility was shown through mainly rhythmic figure and phrasing, while mine was shown in all three scales. The similarity between us was that we were both showing variability particularly in rhythmic figure, and we both stabilized our tempo and phrasing for equal number of times. For one instance Chris' tempo was perceived as a contrast, otherwise, both of us stayed cleared of playing with rigidity and randomness.

Figure 5.5

Chris' Frequency of Change in Autonomy Across Three Sections

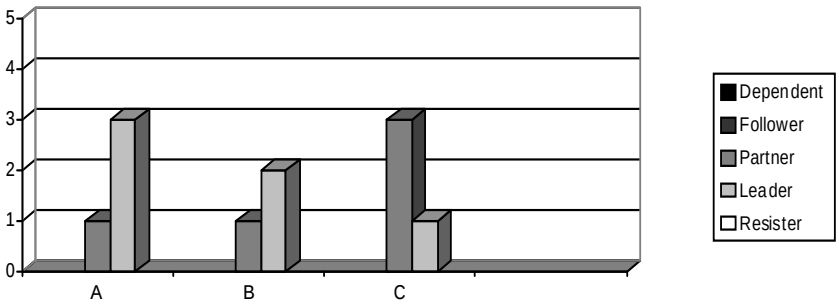


Figure 5.6

Chris' Frequency of Change in Variability Across Three Sections

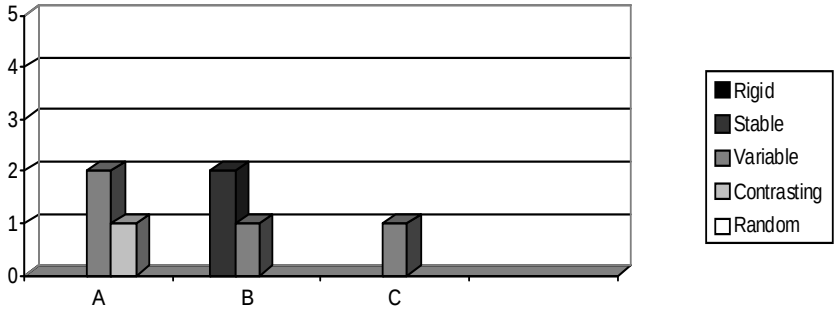


Figure 5.7

Anna's Frequency of Change in Autonomy Across Three Sections

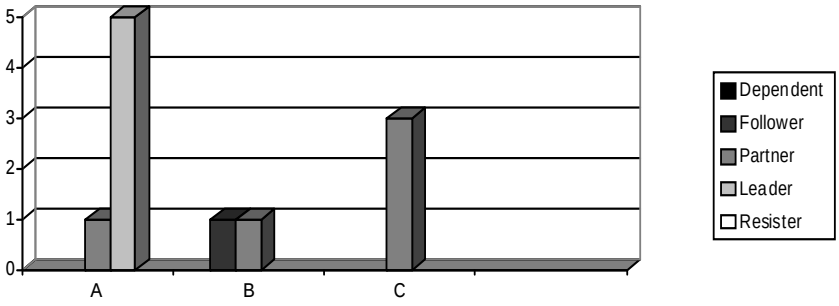
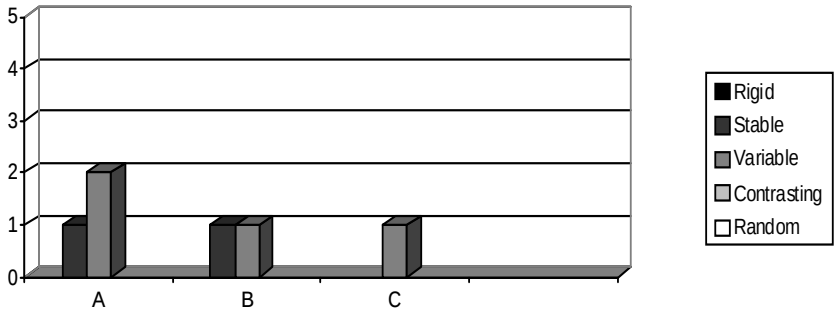


Figure 5.8

Anna's Frequency of Change in Variability Across Three Sections



In section A, both Chris and I held on mostly to leadership role although mine was more frequent than his. In terms of variability, both our parts were variable although Chris was touching on the *contrasting* side, and I was on *stable* side. Overall in section B, stability became a main feature, brought by changes in Chris' part. Role changes were more apparent on my part, as I took the follower and partner role while Chris retained the sense of leadership. The last section was marked by both improvisers actively taking on the partner role and showing variability in the music within such partnership.

V: Description and Interpretation

In a sense, this improvisation did not occur in a typical session Chris and I usually shared. It was not the day of the week, the place or surrounding that we were used to engage interpersonally and musically. In response to Chris' comment that he was feeling hot, I felt I need to think "outside the box" to engage Chris, who seemed reluctant to participate. Involving Chris to making choices, such as where to go and what instruments to bring encouraged participation and communication. However, the elements of uncertainty that were outside of our control were a challenge. This included unexpected

noises from other students, other people looking and passing by. It was a contrasting setting compared to our usual classroom, which was safe, quiet and orderly set up just for music therapy. Also, this session was close to the end of therapy, it would be normal to experience sadness, withdrawal or insecurity. With all these elements of unfamiliarity and uncertainty, it was a setting where Chris' usual and unusual responses could be observed.

This improvisation was unusually short, just over thirty seconds. Despite that, the characteristics of the musical interactions were still typical of us – the consistent, alternating turn-taking, rhythmic imitations and the ending in unison. These were found in the improvisation from session eight (chapter 4.2). But the main difference was that in this session, Chris seemed to show more flexibility and initiation in tempo, thematic and phrasing changes than session eight in terms of his musical interactions with me.

There were mainly four rhythmic motifs in this improvisation, and they all seemed to be related.

Figure 5.9

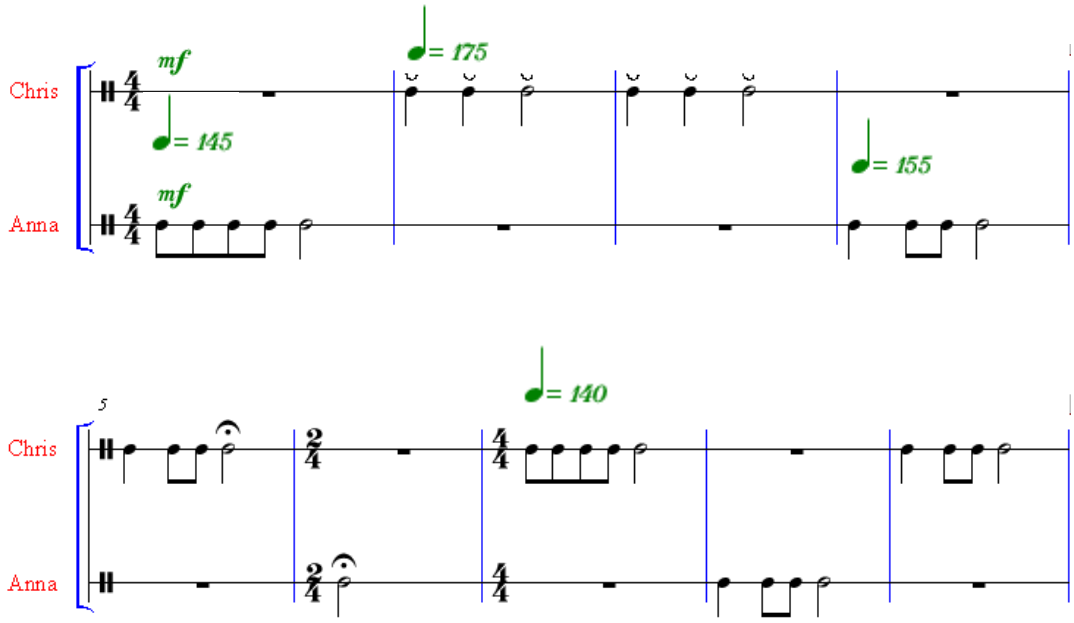
Rhythmic Motif ABCD

Although Chris would typically start instrumental improvisations, in this case, I was the initiator. As seen in Figure 5.10, motif A was played by me as an invitation to Chris. He used motif B, which he repeated twice in a single phrase, as he brushed the cabassa against the cymbal. In this phrase he picked up the minims from motif A, but he sped up the tempo quite dramatically and varied the length of phrase and sound

articulation from mine – as if he was saying: “I don’t feel quite on the same page as you today, but I can bear with it for a little while”. Then I played motif C (a close variation of motif A) in a slower tempo in bar four. This time, he imitated it. In response, I played a single, long note, as a gesture of waiting and inviting him to take the lead. He accepted this invitation by, again, varying the tempo, and bringing back motif A in bar seven. When I repeated motif C, like in bar five, Chris imitated it once again.

Figure 5.10

Bar One to Nine

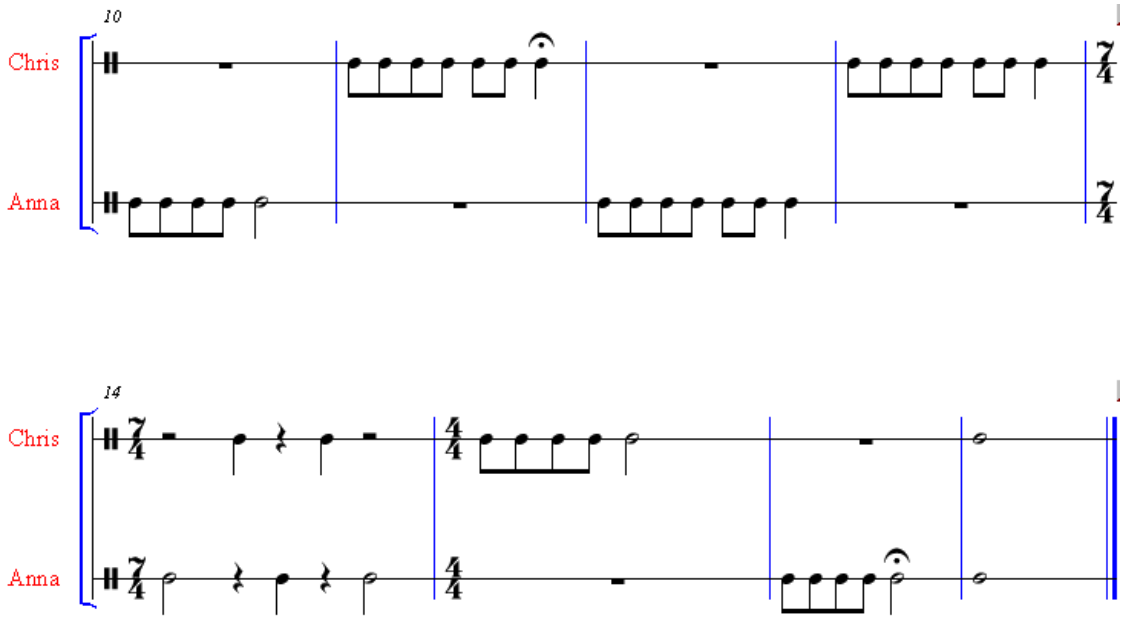


After we alternated between motif A and C from bar seven to ten, Chris presented a new variation of motif A in bar 11 (seen in Figure 5.11). The variation consisted of a longer set of quavers, replacing the long minim note at the end of motif. I welcomed this motif D by repeating it after Chris in bar 12. However, when Chris restated motif D, I went back to playing single notes again, signaling a need to change. Chris was quick to

follow this sudden shift and responded with short crochet notes in bar 14. In the next bar, Chris returned to motif A, which I used I opening the improvisation. When I repeated motif A in bar 16, we seemed to have an agreement to end the music by eye contact and gesturing, and then played our final note in unison.

Figure 5.11

Bar Ten to the End



Despite the shortness in length and Chris' decision to end the session soon after this improvisation, it was still evident that Chris was able to interact, initiate and respond with flexibility during the improvisation. In a situation where he was surrounded by distractions and an unfamiliar setting, he played the cabassa with confidence. When Chris communicated his desire to finish the session early, his choice was respected. In the closure process, the client could easily find himself in a powerless position, where they did not have a choice or control. While each client may react differently to the process, it

is important to celebrate the progress made in the music therapy journey. In this case, this short improvisation embodied a lot of positive steps Chris had taken during the year in terms of engaging in a trusting relationship, interacting with flexibility and communicating with growing confidence.

Chapter 5: Discussion

This study set out to examine four clinical improvisations with the aim of understanding therapeutic changes in Chris' musical interactions with me. In the first part of this chapter, important factors that have affected my understanding of the improvisations are discussed. Each analysis will be reviewed. The second part of the discussion will look at how the analyses answer the research questions in tracing therapeutic changes and communicative qualities in the music.

I: The Research Process

In the beginning, my perceptions of the improvisations were shaped by my role and experience as the music therapy student. When I reviewed my clinical notes and journal reflections for the analyses, feelings associated with my placement, my learning process and Chris were still fresh in my mind. As a researcher, I needed to embrace my clinical experiences as well as distance myself to a certain extent from the role of the clinician when I examined the activities that went on in the music. The process of analyzing the improvisations has brought changes to my understanding of my work and my client. While some findings confirmed my initial impressions, others provided new insights.

The first improvisation, "The Visitor", was the most demonstrative example of how the research has helped me to look at the music differently. At that time, I experienced an overwhelming sense of frustration and rejection when Chris appeared totally oblivious of my musical presence. Open listening allowed me to think beyond the personal reactions, and begin focusing on the quality and characteristics of the music, which then helped me to portray the imagery of Chris as an energetic explorer and my

role as the uninvited visitor. The notation and IAP microanalysis sections required me to break down small components of the music to look for clues that explained or contradicted my impression of the improvisation. The IAP analysis showed that Chris persisted in the leader role and had difficulty making role changes in terms of rhythmic ground, tonality/melody and phrasing. Therefore, my frustrations were likely to have come from frequently changing roles to cope with Chris' lack of flexibility.

Although the level of variability in Chris' playing was occasionally rigid or random particularly in the melodic aspect, most of the music was not as chaotic as I initially thought from looking at the Variability profile, which show much of Chris' and my music as stable and/or variable. Through reviewing thematic materials – motifs and variations in the description and interpretation section, exchanges of melodic phrases (Figure 2.11 and 2.12) and sharing of motif (Figure 2.14 to 2.17) were identified. It was also realized that the rhythmic/tonal grounding I offered (Figure 2.13) played a positive part in sustaining stability and strengthening the much needed sense of partnership in this improvisation. Through these findings, I learnt that there were definite points of musical connection between me and Chris in spite of the initial difficulties we each experienced in the first stage of therapy.

Contrasting with the uneasy feelings associated with the first improvisation, "Two Friends' Chat" in chapter 4.2 was one that I remembered as a highlight as it involved meaningful breakthrough in my clinical work with Chris. With this improvisation I recalled Chris' increased level of engagement and enjoyment, the sense of trust established between us, and moments of musical partnership when he played to the rhythmic pulse I provided. The analysis revealed aspects of the music that I did not see

before. The most unexpected findings indicated in the IAP analysis was that, although both Chris and I experimented with the five different roles in Autonomy, the resister role in both our parts was more prominent than shown in any other improvisations in this study. In this case, we both made efforts to be the leader, otherwise we would often engage in the resister role – both roles demanded a high level of control and persistence. Chris changed to the resister role four times and I did seven times (Figure 3.4 and 3.5). However, the distinction between an assertive leader and resister role was inevitably influenced by the subjectivity of my interpretation. I recognized resister role when I perceived Chris or my music as showing a persisting rigidity, when we continually resist leader-follower relationship with the other, and showing an "exclusive focus on one's own music, continuous repetition of one's own music" (Bruscia, 1987, p. 447). When Chris insisted on the dotted rhythm in the first section of "Two Friends' Chat", I made attempts to encourage changes in the music. Some of these attempts were interpreted as *resister* events but they were essentially used as *redirecting techniques* in improvisations, listed by Bruscia (1987, pp. 545-547).

The techniques that came into play included *introducing change*, *intensifying* and *intervening*. The therapist might feel a need to introduce change when a client becomes stuck with their music, either unwilling or unable to move in any other direction (Bruscia, 1987). Bruscia's comment about introducing change is especially relevant to the imagery of "Two Friends' Chat" as he refers this technique as "the musical equivalent of changing the subject in a verbal dialogue" (1987, p. 545). At several points of the improvisation I tried to introduce change, most frequently by playing a single note other than following the rhythms Chris had established (at 0'17", 0'40", 1'10" and 1'27"). The technique of

intervening was more drastic and intrusive than introducing change. It involves the therapist interrupting or redirecting musical fixations or perseversations (Bruscia, 1987) by sometimes using strong syncopations, cross rhythms, beat delays or rubatos to "destabilize or break up the client's rhythms" (Bruscia, 1987, 547). This technique was especially apparent and effective approaching section B from 0'40" to 0'52" (see notation on from page 65 to 66) when I was playing single crotchet notes that persistently cut off Chris' dotted rhythm figures. In this example, the technique of intensifying was used in conjunction with intervening. In order to "secure the client's attention, to excite and energize the client's improvising", the therapist may intervene by increasing the dynamics, tempo, rhythmic or melodic tension (Bruscia, 1987, p. 546). From 0'40" to 0'52" thematic materials were repeated but volume and tempo were intensified to bring the birth of a new section.

"A Goodbye Song" in chapter 4.3 was initially introduced to engage Chris in parting songs by inviting him to improvise with me on an instrument. Further analysis suggested that, perhaps as a result of engagement and a working partnership, much of Chris' music matched my singing and/or keyboard playing melodically, rhythmically and harmonically. There was an inevitable element of chance and randomness as Chris explored and experimented with the melodica, which was a new instrument for him. But on the other hand, creative intuition could also play a role in our partnership. A famous quote from Abella Arthur (Wikipedia, 2010b) says:

> Intuition is a combination of historical (empirical) data, deep and heightened observation and an ability to cut through the thickness of surface reality. Intuition is like a slow motion machine that captures data instantaneously and hits you like

> a ton of bricks. Intuition is a knowing, a sensing that is beyond the conscious understanding – a gut feeling.

Intuition may not necessarily involve rational processes, yet can involve experiential knowledge or skills regarding a specific task – in this case, the task was instrumental improvisation, which was familiar, and to an extent, mastered by Chris within previous 18 individual sessions. It was possible that this sense of familiarity and mastery allowed Chris to apply his improvising and interactional experiences with me into a new spontaneous scenario. From a clinician's perspective, what appeared as spontaneous could be "embedded in the frame of previous knowledge" of the client, of the session and my own level of expertise (Bunt & Hoskyns, 2002, p. 48). While the element of chance in this improvisation was recognised through *random* events on the Variability profile, the element of intuition was acknowledged in the description and interpretation section, where various points of musical connection were identified from Figure 4.10 to 4.14.

As a music therapy student, I experienced a lot of mixed feelings associated with the improvisation "On a Hot Day" in chapter 4.4. These feelings were not directly related to our musical interactions, but linked with the sense of rejection from Chris when he requested to end the session early. During the closure process, it is inevitable that the experience of loss, anxiety and pain involved in ending relationships affects both the client and therapist (Bunt & Hoskyns, 2002). Everyone deals with endings and the sense of powerlessness differently, and maybe exerting a request was Chris' way of gaining a sense of control. It was important for me, as a clinician, to be aware of my own process

while providing a safe frame for managing our parting, and to allow Chris to have an opportunity to react or express difficult feelings (Bunt & Hoskyns, 2002).

The analysis of “On a Hot Day” has helped me to recognize and celebrate the positive steps Chris had made instead of being “stuck” in the feelings of loss. From the analysis, I understood that despite all the possible difficulties associated with the distracting surrounding and parting process, Chris’ still showed an ability to sustain meaningful contact with me through the music. The significant findings from the IAP analysis were that - our flexibility to role changes and variability changes were very close; both our parts showed a balanced level of variability, without the need to verge into randomness or rigidness; and an equal partnership was suggested in our sharing of tempo, phrasing and rhythmic themes. The description and interpretation section highlighted a sense of negotiation that went on between Chris and me in establishing tempo and rhythmic variations (see Figure 5.9 to 5.11). However, there was an overall coherence in thematic organization and structure, which seemed to reflect our ability to work through this difficult process together.

In summary, it has been challenging to examine my own clinical work, as much of my understanding was limited to my experience as a clinician in training, which was affected by transference and counter-transference, uncertainty, and feelings associated with specific stages of therapy. The analysis process required me to keep an open mind, a sense of wondering, and to engage in continuous learning process. As a result, I found a sense of closure in acknowledging my own clinical experience and in examining elements of improvisations that led to new insights about Chris’ and his journey in music

therapy. The process involved in this research has been very valuable to my training as a music therapy student.

II: Tracing Therapeutic Changes

To understand Chris' therapeutic process through music analysis, this study was rooted on the assumption that there are strong links between the quality of a client's musical presentation and their internal state of being. For individuals with ASD, their difficulties in communication and social interactions – underlined by sensory problems, the inability to make sense of their environment, rigid behaviours and impaired language and communication skills – can be observed in their clinical improvisations particularly through their difficulties in turn-taking, sharing, anticipating, reflecting, copying and empathetic playing (Wigram, 1999). These difficulties were reflected in Chris' improvisations, but seemed to decreased or became less prominent as therapy progressed into later stages. The following will discuss specific therapeutic changes and communicative qualities that were traced through the analysis of Chris' improvisations under three progressive subheadings: developing awareness, reciprocating musical responses and offering non-musical responses.

Developing awareness. In the first analysis, "The Visitor", taken from the early stage of therapy, Chris music suggested an overall lack of awareness and interest towards my musical presence. This was suggested primarily by the lack of silence or space for interactive play between us and his exclusive focus on taking the leader role in Autonomy despite my efforts to adapt various roles to encourage changes (Figure 2.2). Much of his attention seemed to be directed towards the sounds and the act of playing the xylophone. As Alvin recognizes in free improvisation therapy, "relating self to object" can be the

first stage of therapy (Alvin, 1978). This was a phase where Chris needed the acceptance and freedom to experiment and develop awareness and relationship with his self, the instrument and music.

Reciprocating musical responses. "Two Friends' Chat" in chapter 4.2 marked the second phase of therapy, where Chris seemed to have made a considerable progress since "The Visitor". Chris showed his awareness and interest to interact with me particularly through consistent, alternating turn-taking. Compared to the first improvisation, Chris' musical responses in "Two Friends' Chat" was much more organized and structured in terms of tempo, thematic material and volume, shown in the Variability profile (Figure 3.4). Without going into rigidness or randomness, Chris seemed to have found a sense of balance, presenting his music with stability as well as variability. Chris' leader role was persistent in Autonomy, especially in establishing and developing his rhythmic motif (Figure 3.10). However, he also explored four other roles in Autonomy (dependent, follower, partner and resister), suggesting an increased flexibility compared to that shown in "The Visitor". Flexibility was also shown at section B, where Chris let go of his dotted rhythm after my use of redirecting techniques, and he synchronized his playing with a new pulse I provided. This sharing of tempo was considered a meaningful moment - the beginning of a partnership.

The third improvisation, "A Goodbye Song" marked a high point of the growing partnership between Chris and me. Our partnership in sharing tempo, metre/subdivision, melody and tonality was reflected in the Autonomy profile (Figure 4.4) which appeared to suggest a lessened need to demand control from Chris. As a result of that, this improvisation showed much more spontaneity than "Two Friends' Chat" – Chris'

explorations in metre/subdivision, melody and phrasing was captured as “variable” or *random* events in the Variability profile. Although Chris was playing an unfamiliar instrument and could have been guided by intuition and/or chance, there was still an unmistakable sense of organization as well as empathy between us - I picked up a melodic fragment from his opening phrase to form the basis for the entire song (Figure 4.12 and 4.13), and he continued to stay *in tune* with my music melodically, harmonically and rhythmically (Figure 4.10 to 4.14).

By the end of the closure phase, despite possible feelings of uncertainty and loss we experienced, partnership remained a consistent aspect of our improvisations, as seen in chapter 4.4: “On a Hot Day”. Chris and I both adapted to partner role five times in Autonomy through sharing and/or imitating in tempo and phrasing, and most prominently in rhythmic themes (Figure 5.3). Sharing of musical elements required one to be attentive to the other improviser’s music and readiness to response or negotiate with flexibility. Chris’ and my music both showed flexibility, adapting to *variable* events four times in the Variability profile, most frequently in regards to rhythmic figure.

Offering non-musical responses. In the process of building a trusting, therapeutic relationship, improvisational music therapy seemed to foster Chris’ preverbal skills as he developed awareness and progressively engaged in turn-taking, imitating, sharing and empathetic playing.

There were also communicative responses from Chris that were inaudible yet essential within an interactive improvisation, such as eye contact and gesturing. Except for “The Visitor” where he was not ready to interact, Chris and I ended our music together in rhythmic unison in all three other improvisations. While Chris played an

intuitive partner to my leadership role in ending “A Goodbye Song”, he took the initiative in bringing “Two Friends’ Chat” and “On a Hot Day” to a close by actively making eye contact and big gestures for me to follow. It seemed that improvisations also played an important part in supporting and encouraging Chris’ verbal communication. The growing confidence shown in the quality of his music and of his interactions can sometimes be observed in his verbal responses during the sessions. In session three (chapter 4.1) he repeated the phrase “it’s cool” after improvisations when I asked what he thought. In session eight (chapter 4.2), he gave me a cheerful look, saying “I like it” after “Two Friends’ Chat” when I asked what he thought of the sounds and instrument. Session 19 (chapter 4.3) was when Chris was more verbally active than any other session of this study. When I introduced the melodica to him, he asked: “can I call it piano flute” and also said: “I like it”. Before improvising “A Goodbye Song”, he “corrected” me verbally when I said he would not be able to play the melodica and speak goodbye at the same time. He interrupted me by saying “I can” before showing me that he could play a note and then stop playing, to say the word “goodbye”. In this case, his verbal responses were immediate and almost a little “cheeky”, nevertheless appropriate and witty in the context. In session 25 (chapter 4.4), which was two away from our final session, Chris requested to finish the session early, asking “can we just…[stop]?” Through verbal communication, Chris was able to engage and disengage freely from our interactions and this was an important social and communication skill that music therapy was able to support and enhance.

Conclusion

This study features four joint improvisations between Chris and me, taken from my clinical work in a high school special unit. By analysing my clinical notes and journal reflections, notating recorded music, IAP analysis of Autonomy and Variability profiles, as well as writing a description and interpretation for the four improvisations, this research process has helped me to gain more understanding of ASD, of Chris' journey in music therapy as well as my own experience as a clinician and researcher. The therapeutic changes and communicative qualities in Chris' music seemed to show through his growing awareness towards me, his developing ability to interact through turn-taking, imitating, sharing and empathetic playing, and his improving level of preverbal expressions and verbal skills. It was possible that Chris' progress was closely linked with the changing dynamics of our relationship, reflected from chapter 4.1 to 4.4. In chapter one, I was the uninvited *visitor* to Chris' world, in the next, we began to interact as *friends*. Chapter three and four highlighted our roles as *partners*, despite going through the closure process in chapter 4.4.

The analyses of this study confirm that clinical improvisations can reveal a lot about the client - his/her process in music therapy - as well as the therapist's journey with the client. However, the researcher's perspective is often determined by his/her role within the clinical examples studied. In this case, being both clinician and researcher meant that the analyses were limited by my subjectivity, experience and knowledge during and after my clinical work with Chris. On the other hand, these limitations were balanced with the advantages of case study research, through which one can study real

life situations in depth, and allow others to “compare and share”, as Aldridge emphasized (2005, p. 11).

As a clinician, it was difficult to select the improvisations that are considered to represent Chris’ progress as I felt inclined to present the most “successful” piece of work. However, later I found it was equally important to analyse a work that I felt disappointed, frustrated or intrigued about. For example, by including “The Visitor” example in the research process I was able to learn more about my client and my practice.

Even though tools such as Bruscia’s IAPs have been useful in identifying specific characteristics in the music, I found that it was important not to limit the study to any analytical tools in this context-specific work. I thought it was appropriate to include the use of imagery, story-telling and different analytical perspectives to promote the understanding of the music. In future study, I would still consider it valuable to have a music therapist participant to provide a different perspective, which would likely evoke more discussion based on the similarities and differences of perception and understanding of the clinical improvisations.

Music-centred research is unique and important for music therapists as well as those who are interested in this field, for it can capture the prominent characteristics of this process-oriented experience for both the client and the therapist. Furthermore, with the therapeutic outcome so deeply grounded in the development of therapeutic relationships between the therapist and the client, music-centred studies acknowledge the role and influence of the therapist and his/her approaches, rather than focusing solely on the client’s responses. Thus, music-centred studies can “paint” a vivid picture of the therapeutic process and highlight the unique elements and factors that play important

roles within such process. Clinicians can benefit from engaging in music-centred research when they seek to broaden the understanding of and/or improve their practice.

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Appendix A: Information Sheet for Caregiver of Participant

Mt Cook Campus, P.O. Box 2332, Wellington.
Music Therapy Dept., Conservatorium of Music, Tel: 04 801 5799 x 6410/6979

Music Analysis of

Clinical Improvisations with

an Adolescent who has Communication Difficulties

INFORMATION SHEET

My name is Anna Wang. I am a music therapy student in my final year of training, placed at the [redacted] unit of [redacted] High School from March to December this year. I am undertaking this research towards the Master of Music Therapy with the New Zealand School of Music.

[redacted]began individual music sessions with me at the beginning of term one this year. He seems to enjoy engaging in instrumental improvisations with me. I would therefore like to review and analyze audio recordings of her music-making with me in our one-on-one music sessions to understand how communication and socialisation are reflected in the music. Since you have given consent for me to make recordings of his music session for my clinical use, I am now writing to ask if you would be willing for these recordings to be used for research purposes which will mean that [redacted]will be involved as an indirect participant in this project. I will be asking another parent for permission to use recordings for my research as well, so if you are unable to give consent my research will still go ahead.

Your consent will permit:

- The music recordings to be taken from the school to my flat where I would like to work on the research. I have already obtained permission from the principal to take the records from school.
- Parts of the music recordings to be notated onto scores and subject to intensive analysis.

- Parts of the music recordings, my notation and analysis to be shared with another music therapist, who will give comments about the music and my work.
- Parts of the music recordings, all notation and analysis to be presented in the publication of my thesis as well as during presentations on this research to staff and peers of the music therapy programme.
- The information resulting from this research to be offered for journal publication and/or presentation at professional conferences.

The research will begin in November and will be completed in February next year. The confidential documents will be stored in a file cabinet in the therapists office at [redacted] and the audio data containing [redacted]'s music will be stored securely in my computer which will be password protected. When the study is completed, these data will be transferred to the New Zealand School of Music in Wellington and they will be locked in a secure cupboard for 5 years, and then they will be destroyed through the "disposal of confidential documents" system.

The benefit of this study for [redacted]may be that he will gain confidence from the knowledge that he can contribute his music to develop a project and the findings of this research may be a useful reference for future student music therapists who work with him. The identity of your child will be protected as his name will be changed and his name, if audible in the musical extracts, will be removed through editing. However, if [redacted]has a distinctive style of communication that is audible yet is an important aspect of the research, there is still a risk of being identified.

Regardless of whether you give consent or not, [redacted]will continue to receive music therapy until the end of my placement at [redacted]as long as you and her other team members agree it is beneficial. You have the right to ask any questions about the study or withdraw your child's participation at any time. You are under no obligation to accept this invitation. But if you decide to give your consent, [redacted]will be invited to give his consent after I explain the project in simple language, and you will receive a summary of findings when it is completed.

If the caregiver of the other student agrees to let their child participate first, it is possible that [redacted]'s music may not be required for this research. In that case, you will be notified by a letter, informing you that a participant has already been chosen.

If you have questions, you can reach me by calling [redacted] and you can also contact my research supervisor at the New Zealand School of Music, Massey University Mt Cook Campus: Daphne Rickson. She can be reached by phone (04) 801 5799 extension 6979 or via e-mail: Daphne.Rickson@nzsm.ac.nz. Her postal address is Massey University, Mt Cook Campus, Music Therapy Department, P.O.Box 2332, Wellington.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 09/45. If you have any concerns about the ethics of this research, please contact Professor Julie Boddy, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 2541, email humanethicsoutha@massey.ac.nz.

Appendix B: Consent Form for Caregiver of Participant

Mt Cook Campus, P.O. Box 2332, Wellington.
Music Therapy Dept., Conservatorium of Music, Tel: 04 801 5799 x 6410/6979

Music Analysis of

Clinical Improvisations with

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CONSENT FORM

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

Please CIRCLE your reply

I agree / do not agree to give permission to Anna Ping-An Wang to use the clinical recordings for her research.

I agree / do not agree to allow [redacted] to be an indirect participant in this research.

Signature: ..... **Date:** .....

Full Name - printed .....

Appendix C: Information Sheet for Participant's Assent

Mt Cook Campus, P.O. Box 2332, Wellington.
Music Therapy Dept., Conservatorium of Music, Tel: 04 801 5799 x 6410/6979

Music Analysis of

Clinical Improvisations with

an Adolescent who has Communication Difficulties

INFORMATION SHEET

For the Adolescent Participant

The information here is to be communicated by a teaching staff to whom the participant's assent may be expressed

You have been doing music every Thursday morning with Anna for two terms now. Anna thinks the music has been very interesting and she would like to write a book about the music you play together. Is it okay if she:

- writes about your music in the book,
- makes a CD of your music for the book, and
- shares with other people when talking about the book?