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IN CLINICAL MUSIC IMPROVISATION
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Susan Claire Gardstrom

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AN INVESTIGATION OF MEANING IN CLINICAL MUSIC IMPROVISATION WITH TROUBLED ADOLESCENTS

VOLUME I

By

Susan Claire Gardstrom

A DISSERTATION

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ABSTRACT

AN INVESTIGATION OF MEANING
IN CLINICAL MUSIC IMPROVISATION WITH TROUBLED ADOLESCENTS

By

Susan Claire Gardstrom

The purpose of this qualitative study was to investigate meaning-making in clinical music improvisation with troubled adolescents. Participants were six youth from two partial hospitalization programs. These individuals, ranging in age from 12 to 17, had severe behavioral and emotional disturbances. Each participant was involved in no more than five improvisation sessions with the researcher.

The adolescents were asked to create nonreferential and referential instrumental improvisations, both alone and with the researcher. After each improvisation, the participants and the researcher listened to and/or talked about the piece. Selected improvisations were then analyzed using Bruscia's (1987) Improvisation Assessment Profiles (IAPs), and intramusical and intermusical relationships were discerned. Textual data from session transcripts and field notes were analyzed and intrapersonal and interpersonal relationships were identified. Musical

and textual data were compared, as were data for the participants and the researcher.

While the manner in which the musical elements were organized to create meaningful improvisations was unique to each individual, tendencies did appear across cases with respect to rhythmic integration, tonal expression, timbre, and playing configuration. Analysis of the verbal meanings assigned to the improvisational products and processes also revealed commonalities, such as the perception that music evoked emotions and allowed for the expression of existing feeling states.

A comparison of participant and researcher data revealed both divergent and analogous musical and verbal meaning-making tendencies.

Conclusions and implications for clinical practice, education and training, and further study are presented.

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CHAPTER ONE

INTRODUCTION

At the heart of this study was an interest in learning more about meaning in clinical improvisation with troubled adolescents. The term *troubled adolescents* refers herein to teens with severe behavioral and emotional disorders, many of whom require education and treatment in secure settings such as residential schools and psychiatric hospitals.

Improvisation, which can be defined as the art of making up music "while playing or singing, extemporaneously creating a melody, rhythm, song or instrumental piece" (Bruscia, 1991, p. 5), is one of four primary music therapy methods used regularly in clinical practice, along with receptive, re-creative, and compositional methods (Bruscia, 1998a). Many types of media are employed in improvisatory experiences, including sounds generated on or by the body, the voice, and/or any number of musical instruments, such as piano, guitar, and pitched and nonpitched percussion instruments (Stephens, 1983).

One way of classifying the improvisations used in music therapy is according to whether they are *referential* or *nonreferential*. As the name implies, referential music refers to or portrays something outside of itself (Meyer,

1956). A referential improvisation may be created based on a nonmusical direction, guideline, or rule (a "given") such as a verbal title, an emotion, situation, or image. During referential improvisation, meaning is formed from and revolves around the referent that is pre-selected (Bruscia, 2001).

In contrast, a nonreferential or *free improvisation* is created from and revolves around the sounds and/or music itself rather than a nonmusical referent (Priestley, 1994). Thus, during nonreferential improvisation, meaning is made from and in relation to the sounds themselves.

With both types, referential and nonreferential, different types of meanings may be attributed to an improvisation after it occurs, as the player ponders and/or discusses it. In hindsight, for example, the player may give meaning to a referential improvisation that does not relate in any way to the established referent. Likewise, after a nonreferential improvisation, the player may attach a title, suggesting an external point of reference (Priestley, 1994), or ascribe symbolic meanings to the improvisation (Bruscia, 2001). Furthermore, verbalized meanings may relate to the improvisation itself (the musical product), the improvisation as a reflection of some aspect of the player, such as personality attributes or

self-image (Hiller, 1994), a reflection of the therapeutic relationship or process (Pavlicevic, 1997), a representation of significant relationships (Leeseberg, 1994), and so on.

In my clinical work with young male and female felony offenders in a residential training school, I used both referential and nonreferential improvisation along with receptive, re-creative, and composition experiences. The spontaneous creation of unique sounds and music "from within" was particularly appealing to the adolescents, as evidenced by their frequent requests to improvise and their eager participation. Improvisation appeared to allow for active self-expression and communication and enhance interpersonal relationships in a way that the other methods did not. It also enabled me to express myself and communicate with the clients authentically on a creative, musical (nonverbal) level, which lent vitality and satisfaction to my work.

The Beginnings of This Project

My curiosity about meaning in music therapy began in earnest in 1999 during a clinical improvisation workshop I attended at the Nordoff-Robbins Center at New York University (NYU). The workshop caused me to reflect profoundly and sincerely on my previous clinical work at

the training school. It is this contemplative process (still ongoing) along with an exploration of the professional literature that has activated and sustained my interest in this research topic.

Initial Reflections

While at NYU I was immersed in making music, viewing and analyzing clinical videotapes, and discussing diverse concepts and issues related to therapeutic improvisation. In each of these experiences, the *centrality of meaning* was emphasized. The workshop leaders, all practicing clinicians, offered their perspectives on the meaning of the improvised music and related it to their clients' unique personalities, the relationship between the therapist and client, and the changes that each experienced as therapy unfolded.

I left the workshop with a sense of excitement and a profound commitment to learning more about improvisation. I was eager to share what I had learned with my colleagues at the university where I was teaching and to implement newly acquired techniques in the classroom.

However, I also left with nagging doubts about the nature of my own approach to clinical practice in my work with teens years before. As previously mentioned, I had used improvisation with the young offenders, yet my

clinical efforts had been directed primarily toward effecting changes in observable and measurable *behaviors*, rather than toward helping the clients find or create meaning in their chaotic and unsatisfying lives. This is not to say that our experiences of improvising together were devoid of meaning or that meaning was unimportant, but rather it was not a clinical focus.

As I further reflected on my work, I recalled that improvisation had often held great meaning for me and that this meaning was quite diverse. Sometimes it was related to the recognition of internal changes during the improvisation, for example, a sense of peace or spiritual well-being that had not been present before the music-making began. Sometimes meaning was connected to my relationship with the client, such as in an unprecedented, intimate interplay of tenderness. These personally meaningful experiences within a professional context fueled my curiosities about the clients' experiences: Had improvising held meaning for them as well? If so, what had they found meaningful? It dawned on me that, although I had worked with adolescents for nearly nine years, I knew very little about their experiences in improvisation. Unlike most of the multi-handicapped clients in the videotapes at the NYU workshop, these teens had the ability

to describe in detail their personal and unique perspectives on improvisation, yet I had never invited them to do so. Consequently, I had surmised about what might have been happening as we improvised together and had based in-the-moment clinical decisions on these speculations.

My Experiences In Improvisation

Shortly after I returned from the workshop, it occurred to me that although it was impossible for me to access information about previous clients' experiences, I could ponder my own experiences as a therapist and improviser, so that such recollections might serve as a catalyst for deeper understanding. With this in mind, I began to reflect on and write about some of the experiences, both general and specific, that I had had while improvising with the adolescent offenders. As I wrote, I thought about if and how the clients' experiences might have related to my own.

The Next Encounter

By coincidence, when I returned to teaching in the fall of 1999, I had the opportunity to work with troubled adolescents once again: At the request of a senior student, I reinstated a practicum at a nearby alternative school for children and adolescents with behavioral and emotional disorders. Throughout the semester I led, co-led, and

observed music therapy sessions at the school. I encouraged the use of rhythm-based group improvisation, both because I believed it was important for the student therapist to develop facilitation skills in this method and because I ascertained that the method itself would support the clinical intentions espoused by the school.

The school program was explicitly grounded in principles of behaviorism, and the host teachers expected the student therapist to assimilate and embrace certain aspects of that model, such as awarding points for participation and using time-out procedures as a means of enforcing and modifying behavior. Working within the philosophy and structure of this system should have felt comfortable, as I had functioned within an analogous model for many years. Yet now it felt awkward to emphasize behavior exclusively, and I became cognizant that my view of the "essence" of music therapy was transforming. In part, my definition of clinical effectiveness was expanding. I was still pleased to see demonstrated changes in functioning (and I encouraged the student therapist to track and document these changes as part of the evaluation process), but now I was equally concerned with whether or not the experience of improvisation held meaning for the adolescents. In my interactions with and observations of

the clients, I found I gave less attention to the sequence and frequency of behavior (who did what when, how many times did such-and-such happen) and more to what might be happening from the clients' perspective. While verbally processing the sessions with the students in supervision, I noticed that I made fewer references to behavior, instead generating questions about the music, about the clients' experiences, and about the possible meaning of those experiences. Somehow these felt like the "right" questions to pose, yet I struggled to find words and provide answers. At the end of the semester, I was more keenly aware than ever of my gaps in understanding. I still knew very little about the experiences of the adolescents in improvisation, if or how these experiences were meaningful for them, and if or how their perceptions of meaning related to their overall growth and development.

Important Findings in the Literature

At this point I turned to professional literature hoping to find answers to some of the questions that had arisen. I searched several data bases combining the keywords *adolescents* and *music therapy, improvisation, and meaning*. My efforts yielded many articles describing treatment protocol/programs and research projects involving adolescents; however, the preponderance of these reflected

a behavioral stance. Only a handful of resources addressed improvisation with adolescents, and fewer mentioned meaning.

At the suggestion of a colleague, I broadened the scope of my search to include resources about meaning in music therapy with other clinical populations (e.g., multihandicapped children, medical patients, etc.), as well as qualitative research and the analysis of clinical improvisation. I was pleased to find a web-based forum of the Nordic Journal of Music Therapy and several relevant books and articles on these topics. I read these resources simultaneously, returning to certain books or articles that were particularly engaging or baffling. I found that reading inspired further reflection of previous clinical events and that this reflection in turn helped to clarify some of the constructs and clinical applications that were highlighted in the publications.

Meaning. Writings about meaning in music therapy were chiefly philosophical/theoretical and illuminated the complexity and richness of the subject (Aigen, 2001; Ansdell, 1996; Jungaberle, Verres & DuBois, 2001; Lehtonen, 1998; Pavlicevic, 1997, 2000b; Stige, 2002). Here, several aspects seemed particularly important in shaping my

understanding of and appreciation for the many questions surrounding this topic.

The first of these questions is, Where does meaning come from? Several perspectives exist (some of which will be highlighted in Chapter Two); however, the study of meaning in music therapy is generally accepted to be the study of *constructed* meaning. As asserted above, such constructions occur both while improvising and in the meta-reflections of the improvisation verbalized by the players afterward. So, as we improvise, we make meaning in the music. As we reflect on and describe our experiences in improvisation, we also make meaning. These constructions of meaning are based on who we are as unique individuals and all that we bring to the experience, including our personal and social histories and contexts (Amir, 2001; Bruscia, 2000a; Ruud, 1998; Stige, 2002). This helps to account for the phenomenon that two individuals sharing the same time and space in improvisation may derive different meanings within and from the music and may verbally describe the meanings of the improvisational experience in completely different ways. The notion that meaning is constructed also helps to explain the phenomenon that individuals may find different meanings in retrospect than they did immediately after the experience of improvisation.

This was an important discovery for me, coming from more of an objective, behavioral perspective in which there are presumed to be single, static truths or realities in given domains of inquiry (Forinash, 1995; Smeijsters, 1997). From this constructivist viewpoint, then, if I ask a teen to improvise and subsequently talk about the experience, their recognition of meaning may be entirely different from what I might perceive and describe as the meaning. Furthermore, if I reflect on or ask that client to reflect on the improvisation at a later time, new and different meanings may emerge.

A related finding in the literature was that meaning-making can be a shared endeavor; that is, the client and therapist can co-construct meaning both in the making of the music and the verbal processing that follows (Bruscia, 2000a; Pavlicevic, 1997). Musical co-construction is, in fact, much like two individuals involved in the give and take of spontaneous verbal dialogue; one improviser recognizes and responds to meaning in the music of the other player. In this way the "conversation" unfolds and is shaped moment to moment by both improvisers within the shared musical and clinical context.

The concept of co-constructed meaning generated further questions, namely, Is all meaning in clinical

improvisation co-constructed? Is co-construction of meaning an overall goal of treatment or somehow preferred in clinical improvisation? Again, not having focused specifically on meaning in my work with adolescents, I could only speculate that co-construction might have occurred in our improvisations together.

Another significant unearthing was that meaning can be considered from many perspectives, for example 1) designative or *semantic meaning*, that is, what music or language about musical experience might symbolize, 2) *effect*, that is, greater meaning as a desired outcome of treatment, and 3) *process*, that is, discovery of meaning through the ongoing course of therapy (Bruscia, 2000a; Pavlicevic, 1997; Priestley, 1995). This knowledge was especially useful in my subsequent exploration of the literature, as it enabled me to "categorize" and make greater sense of each author's particular viewpoint.

One study indicated that participants may experience meaning in physical, cognitive, emotional, and/or spiritual realms during clinical improvisation (Amir, 1992), while others suggested that clinicians and researchers interpret these meanings according to one or more specific psychotherapeutic orientations (e.g., cognitive,

psychoanalytical, existential/humanistic, etc.) (Stige, 1998).

Qualitative Research. With epistemological questions, I turned to relevant literature on qualitative research in music therapy (Langenberg, Aigen & Frommer, 1996; Smeijsters, 1997; Wheeler, 1995). Although I had previously read some of these books and articles, reading them again from a researcher's perspective (rather than as a graduate student or teacher) helped me identify salient features of the qualitative paradigm that had particular relevance to my research topic. I found that many core concepts and beliefs aligned with my newly-emerging notions about what was important in clinical practice (meaning) and how it might be possible to broaden my understanding of this topic. I was excited to find that the qualitative approach is well-suited to the process of comprehending meaning, that is, discerning themes and making interpretations (Aigen, 1995; Merriam, 1998). Furthermore, according to McLeod (2001),

> the activity of doing qualitative research (identifying and clarifying meaning; learning how the meaning...is constructed) is highly concordant with the activity of doing therapy (making new meaning, gaining insight and understanding, learning how personal meanings have been constructed)(p. 16).

Because my questions about meaning had flowed directly from my clinical experiences (both reflections of previous work and treatment in progress at the alternative school), I was drawn to the qualitative outlook that the overarching aim of research is to generate valuable information for clients and therapists involved in the therapeutic process. Traditional quantitative research approaches often have been criticized for a failure to address or apply to the "real life" questions, problems, and challenges inherent in music therapy clinical practice with actual clients (Aigen, 1995; Forinash, 1995).

I was also attracted to the qualitative premise that not all phenomena can be reduced to observable and "clear, defined independent and dependent variables" (Smeijsters, 1997, p. 14). The questions I was posing primarily related to the internal (psychological) *experience* of improvisation rather than the overt, measurable behaviors associated with the *activity* of improvisation. Furthermore, I was interested in the experience of improvisation *in toto*, not just select or isolated aspects of that experience. Improvisation, a potentially complex, multi-faceted, and nonlinear process, cannot be fully understood if it is reduced to discrete variables. Qualitative methods seek to reveal the unabstracted whole of experience.

A further presupposition of qualitative research is that all inquiry is time-, context-, and value-bound. Thus, findings cannot necessarily be generalized. Did this mean that whatever I discover about meaning-making will pertain only to my unique testing situation? This has been the most difficult premise for me to understand and accept. If, in fact, findings can not be generalized from one situation to another, what value will my investigation hold for the practitioner? And a bigger question: In the absence of generalization, how can qualitative researchers make the claim that qualitative inquiry is more directly applicable to music therapy practice than quantitative research?

Two things helped to clarify my understanding here. The first was a conversation with my research consultant who reminded me that the value of my research endeavors lay in identifying how to more fully understand the client participant, rather than in identifying specific maneuvers or techniques that lead to change. At this point I realized that I had held an unspoken belief that the effectiveness of therapeutic improvisation depended primarily on the actions of the therapist. If this were always the case, the ability to generalize findings about specific variables or actions found to "cause" a particular

"effect" or outcome would indeed be highly attractive to other clinicians. A concern with cause and effect in music therapy typically rests in the domain of quantitative research.

A second "help" came from treatises by Aigen (1995) and Smeijsters (1997) that explicate the qualitative standard of *transferability* (akin to *external validity* in quantitative research). Aigen discusses the importance of presenting to the research community all of the personal values and experiences that have influenced and been influenced by the project. He writes

> Through revealing this type of personal information the researcher creates a vicarious experience in the reader, allowing the reader to connect to an analogous experience in his or her own history. The result is that the reader is better able to apply the results of the inquiry because they will now have personal meaning as well as be of professional interest (pp. 13-14).

Smeijsters (1997) seems to concur, noting that researchers must provide "a multilayered description of the original context" (p. 39) so that readers may assess the degree of similarity between the research context and their own. Simply put, the more comparable the contexts are perceived to be, the greater the potential for the transfer of results.

Phenomenology. Next I turned my attention from philosophical and theoretical concepts to methodology, hoping to gain some insight into the specific procedures that have been used to explore the topic of meaning in music therapy. I learned that, with very few exceptions (Thaut, 1988; Wigram, 2000), approaches to the study of therapeutic improvisation have relied at least in part on qualitative methods. One method, *phenomenology*, is situated at the heart of qualitative research practice (McLeod, 2001; Merriam, 1998) and has been increasingly applied to the music therapy research of the last fifteen years.

Phenomenology is concerned with the study of human experience as it is lived and directly encountered (Giorgi, 1970). One type, *empirical* or *descriptive phenomenology,* has as its focus the apprehension and description of the *essence* of human experience. A fundamental premise of this approach is that the explication and description of the essence or enduring structure of a phenomenon (in this case, the experience of clinical improvisation) is necessary for the understanding of the full psychological meaning of that experience (Giorgi, 1970).

A further foundational assumption of descriptive phenomenology is that the researcher is not only able but

is obliged to maintain an open, indeterminate perspective toward the phenomenon; that is, he or she needs to set aside a natural attitude toward the phenomenon, their "normal, taken for granted way of approaching the world" (Moran, 2000, p. 144). In order to distill human experience into its true essence, then, the researcher holds in abeyance ("brackets-off") any and all assumptions and biases that might obscure the essence of the phenomenon - the "thing itself." McLeod (2001) describes this process as a risky "journey during which one leaves familiar places and then returns and sees these places in a fresh light" (p. 37).

As I considered how to approach learning more about meaning in clinical improvisation with adolescents, descriptive phenomenology seemed like a good fit. This method has enabled many music therapy researchers to apprehend and richly describe the essence of experiences of both music therapists and their clients while engaged in a variety of clinical situations including improvisation (Aldridge, 1989; Amir, 1990, 1993; Forinash, 1992, 1995; Forinash & Gonzalez, 1989; Kenny, 1987; McFerran-Skewes, 2000).

Research Questions

In summary, reflections of my clinical work and a review of the extant literature served as the primary inspiration for this project and informed its evolution. Central questions about the meaning of improvisational experiences with troubled adolescents were resurrected as I began to supervise undergraduate students in their fieldwork. A thorough investigation of the professional literature revealed a troubling lack of information on the topic with this particular clientele. Professional resources such as books, journal articles, and web-based dialogues about meaning in music therapy, however, provided a solid rationale for this project grounded in principles of descriptive phenomenology, as well as models for study design.

The overarching purpose of this research was to learn more about what troubled adolescents and their therapist found meaningful in clinical improvisation. More specifically, I investigated constructed meanings in client and therapist solo and duet improvisations. The initial research questions were as follows:

1. What does the adolescent client find meaningful about/when improvising with the therapist?

2. What does the therapist find meaningful about/when improvising with the adolescent client?
3. How do the meanings of the client and therapist compare?

During the analysis of the music improvisations (see Chapter Three), it became apparent that the musical data were not revealing *what* was meaningful so much as *how* each of the players in the study employed, organized, and manipulated the musical elements to create meaningful music. Analysis of the verbal data, on the other hand, revealed the nature of those meanings for each of the players. Thus, soon after beginning the analysis, I changed the language in the research questions to reflect this subtle but critical conceptual shift:

1. How does the adolescent client organize his or her sounds in order to create meaningful music when improvising solo and with the therapist?
2. How does the therapist organize his or her sounds in order to create meaningful music when improvising with the client?
3. What meanings does the client assign to the improvisations and the experience of improvisation?

4. What meanings does the therapist assign to the improvisations and the experience of improvisation?
5. How do the meanings of the client and therapist compare?

CHAPTER TWO

REVIEW OF LITERATURE

The therapeutic use of music with troubled adolescents has been increasingly documented in the professional literature over the last twenty years. Although music has been used effectively toward clinical aims and in a preventive capacity with *normal* or so-called *high-risk* adolescents (Laselle & Russell, 1993; Selekman, 1995; Stephens, Braithwaite and Taylor, 1998; Tolmach, 1985), most publications refer to the use of music therapy with adolescents who have emotional and/or behavioral disorders. Information on this topic appears in periodicals relating to music therapy, psychology, adolescence, sociology, anthropology, counseling, and social work. Extant publications include program descriptions, research projects, and philosophical and theoretical writings.

Adolescence is a time of tremendous change and conflict, often referred to as *Sturm und Drang* (Storm and Stress). It is considered a normal transitional stage of life during which the individual's predominant task is to move from identity confusion (and possible diffusion) toward an integrated concept of self (Erikson, 1968). Adolescents begin to extricate themselves from childish,

dependent ways of being and assume the mature thoughts and actions associated with adult roles.

Unfortunately, not all teens begin this important developmental phase with the internal and external resources required for healthy development. With histories of abuse, neglect, trauma, and school failure, some individuals enter their teen years with severe emotional and behavioral problems. The term *troubled adolescents* is used herein as a broad designation that encompasses youth with a wide variety of such disturbances.

Troubled adolescents involved in music therapy treatment may carry any number of primary diagnoses or labels. Examples include (1) *behavior disorders, conduct disorders, and delinquency* (Gardstrom, 1987, 1993, 1996; Johnson, 1981; Kivland, 1986; Michelle & Martin, 1970; Montello & Coons, 1998; Steele, 1975; Rio & Tenney, 2002; Skaggs, 1997; Wyatt, 2002), (2) *emotional impairments* (Edgerton, 1990; Edison, 1989; Haines, 1989; Hong, Hussey & Heng, 1998), and (3) *various psychiatric disorders* such as depression, post traumatic stress disorder, and schizophrenia (Frisch, 1990; Henderson, 1983; Lehrer-Carle, 1971; Mark, 1988; Nelson & Weathers, 1998; Saroyan, 1990; Wells & Stevens, 1984). Also appearing in the literature are accounts of music therapy with adolescents who have (4)

substance abuse problems (Dougherty, 1984; James, 1988a, 1988b), individuals who have been (5) *physically and sexually abused* (Boyd, 1989; Clendenon-Wallen, 1991; Heal, 1989; Lindberg, 1995; Slotoroff, 1994), (6) *bereaved teens* (McFerran-Skewes, 2000), and those with (7) *medical complications* related to eating disorders (Robarts, 2000; Wigle Justice, 1994) and teen pregnancy (Liebman & MacLaren, 1991).

These various labels can help music therapists as they communicate with other professionals about their clients, in that each designation implies specific symptoms and a customary treatment protocol (Peters, 2000). However, it is important to note that, while adolescents may be assigned a primary diagnosis or label, most troubled youth display a broad and complex array of disturbances in their physical, cognitive, emotional, and interpersonal functioning.

Treatment scope and approaches vary widely, depending on frequency, intensity, and duration of disorder as well as philosophical underpinnings of the facility in which treatment occurs. Music therapy with troubled adolescents aligns with many different approaches, including psychoeducational, behavioral/cognitive-behavioral, and psychodynamic, to name a few (Peters, 2000). In summary,

in psychoeducational models an emphasis is placed on educating teens about their disorder through didactic and experiential interventions in tandem with exploring and resolving therapeutic issues through individual, group, and family counseling (Brendtro & Ness, 1983). Behavioral/cognitive-behavioral approaches seek to reduce maladaptive behaviors and replace them with more acceptable, overt responses (Luce, 2001). Psychodynamic therapy involves recognition and working through of unconscious psychological dynamics and conflicts through verbal and nonverbal means (Bruscia, 1998c; Frisch, 1990).

Methods Used in the Treatment of Troubled Adolescents

An examination of the literature reveals that the treatment of troubled adolescents involves the use of all four methods of music therapy as described by Bruscia (1998a). These methods or types of experiences are receptive, re-creative, composition, and improvisation. Each type is unique in its characteristics, demands, and thus its potential therapeutic outcomes. All four methods and many variations thereof (some of which are described below) have been used to address the numerous and interrelated needs of troubled youth.

Receptive

Receptive experiences involve listening and responding to music. Responses may be covert, such as imagery, or overt, as with improvisation or verbalization. Some primary clinical aims of receptive experiences include client stimulation or relaxation, elicitation of affective states or experiences, facilitation of memory, and stimulation of peak and spiritual experiences (Bruscia, 1998a).

One specific receptive intervention used with troubled adolescents is song lyric discussion and analysis (Cassity & Cassity, 1995; Edgerton, 1990; Wyatt, 2002). This intervention is frequently cited in the literature as a means to encourage self-expression and communication in individual and group treatment of teens (Mark, 1988; Skaggs, 1997). The rationale underlying this experience is that music occupies a central role in the lives of adolescents; nearly all teens regularly listen to popular music (Christenson & Ralphs, 1998). The familiarity of the medium invites comfort and self-disclosure. Mark (1988) illustrates a program in which the examination of metaphoric lyrics in rock music allow adolescents to express feelings of sadness, hurt, restlessness, frustration, and anxiety. She writes, "Relevant adolescent

themes in songs develop into meaningful communication, and values denoted in the lyrics can be challenged, supported, and interpreted…" (p. 314). The author attributes the teens' high level of interest in this particular intervention to the fact that the music listening and discussion allows them to connect with others, thereby feeling less alienated from the world around them.

Music for meditation and relaxation has also been used in the treatment of troubled adolescents (Lefebvre, 1991). In one survey study, high school counselors indicated that the frequent use of relaxation and music assisted students with behavior problems (Laselle & Russell, 1993). Another study conducted by Gladfelter (1992) revealed that a simple music listening experience (listening to a jazz music selection for 20 minutes while reclining) significantly reduced the self-reported state and trait anxiety of emotionally impaired, delinquent adolescents in residential treatment.

Skaggs (1997) used the Bonny Method of Guided Imagery and Music (GIM)(adapted and paired with art work) with adolescent sexual offenders in residential treatment. (Conventional GIM involves listening to music while in an altered state of consciousness and dialoguing with the therapist.) Skaggs offers anecdotal support for the

efficacy of this and other creative arts therapy methods in defining underlying treatment issues, developing social skills, and identifying musical and nonmusical resources for accessing, expressing, and managing feelings and behaviors.

Re-Creative

Re-creative experiences, in which the client realizes precomposed music or assumes specific roles in structured music activities and games, are used to improve attention and sensorimotor functioning, establish communication, and improve group skills. Specific variations of re-creative methods include learning, rehearsing, and performing precomposed music, singing songs, participating in musical productions, and conducting music (Bruscia, 1998a).

One of the first descriptions of the use of re-creative methods with troubled youth appeared in the Journal of Music Therapy when this periodical was in its infancy. Anna Mary Wilson (1970) writes about a special education program for children and adolescents with emotional disturbances in which music was one of several activities used to motivate the clients and provide opportunities for appropriate socialization and independence. Productions, assemblies, and individual instruction were employed.

Other examples of the use of re-creative interventions appear in descriptions of individual and group treatment and research (Edison, 1989; Kivland, 1986; Lefebvre, 1991; Ragland & Apprey, 1974; Wyatt, 2002).

Composition

Composition experiences involve the creation of a musical product, whether lyrics, songs, instrumental works, or audio and video recordings. These creative interventions allow for the improvement of organizational and problem-solving skills, self-responsibility, communication of inner experiences, and exploration of therapeutic themes. Variations include songwriting, instrumental composition, and musical collages (Bruscia, 1998a).

Songwriting appears frequently in published articles about music therapy with troubled adolescents as a means of increasing self-expression and building group cohesion (Cassity & Cassity, 1995; Delk, 1993; Gardstrom, 1996; Tervo, 2001). Sometimes songwriting techniques are utilized with lyric discussion. One example of this pairing is Creative Group Songwriting (Edgerton, 1990), in which composition is used along with listening and improvisation to increase self-expression, enhance group

cohesiveness and functioning, and achieve a sense of competence and pride.

Improvisation

The fourth and final method -- and the focus of this project -- is improvisation, the extemporaneous creation of sound forms and/or music, individually or with others. As noted in Chapter One, two fundamental types of improvisations are used in music therapy, referential and nonreferential, each with a specific focus. Referential improvisations involve the portrayal of something nonmusical, such as a feeling, idea, image, or event. Nonreferential or free improvisations do not involve a referent but rather are created around the sounds and/or music itself (Bruscia, 1987).

Improvisation can be used both individually and with groups of teens toward educational, recreational, and therapeutic goals, although goals are predominantly psychotherapeutic in nature (Bruscia, 1987). Educational goals emphasize the client's acquisition of knowledge and skill; recreational goals relate to the client's use of leisure time; and therapeutic goals are concerned with "helping the client gain insight about him/herself, work through feelings, problems, and symptoms, make basic changes in his/her personality, and develop more effective

methods of adaptation" (Bruscia, 1987, p. 8). Even when improvisation is used toward therapeutic aims, treatment approaches may differ in philosophy. That is, some therapists use music as the primary stimulus for therapeutic change (music *as* therapy), while others use music as an aid to interpersonal and therapeutic processes (music *in* therapy). In the latter orientation, verbal processing is frequently a regular aspect of treatment.

Benefits of Improvisation With Troubled Adolescents

Improvisation is an Active Intervention

Improvisatory experiences may be particularly valuable in the treatment of troubled youth for several reasons. First, while improvisation may be used receptively (as when a client listens to another person improvise) (Bruscia, 1987), it is most often an active intervention. Active music-making engages and holds the participant's attention. Frisch (1990) notes that with puberty comes a "tremendous increase in physical and psychic energy, sexual energy, and accompanying this, creative drive" (p. 18). This excess vigor and the physical stress that sometimes accompanies adolescence can be discharged onto the head of a drum or the keys of a piano. The active, "here and now" nature of improvisation may also be particularly well-suited to

adolescents who have difficulty with receptive experiences due to attention deficits or hallucinations resulting from psychosis.

Improvisation Does Not Require Musical Training

One of the most advantageous aspects of clinical improvisation is that it makes use of the natural propensities and abilities of the individual at the time of treatment. No prior musical training or experience is necessary in order for the adolescent client to participate in, succeed in, or benefit from music therapy interventions (Peters, 2000). (This is fortunate in that, in this author's experience, few teens in treatment have had the opportunity for extended or meaningful music instruction.) In improvisation, the client need not make music according to a prescribed structure or process, as is often the case in re-creative experiences in which standard notation is used. Furthermore, a basic axiom is that there is no right or wrong in clinical improvisation; that is, all sound forms and/or music created by the client are accepted as valid. This assists the therapist in developing rapport with clients, helping them to feel safe, and supporting them during the therapeutic process (Bruscia, 1987). The "come as you are" and "do what you will" nature of music improvisation may be especially enticing and meaningful for

troubled youth who have little confidence in themselves and their abilities or a lack of trust in others.

Improvisation Affords Versatility and Freedom

Lefebvre (1991) suggests that the flexible nature of improvisation renders it a particularly useful method with adolescents because it can mirror the unpredictability and upheaval characteristic of this developmental stage. Improvisation also allows for stylistic versatility and freedom. Most adolescents prefer the music of their peer subculture which, in this country, tends to be rock and its many derivatives, rap, and, in some cases, country and western (Christenson & Ralphs, 1998). Yet at the same time, teens are searching for ways to assert their uniqueness. Unlike re-creative and receptive experiences that use precomposed music, improvisation is a spontaneous process, unbound by any particular stylistic constraints. When adolescents improvise, there are infinite rhythmic, melodic, harmonic, timbral, formal, and thus, stylistic possibilities for expression of their individuality.

Improvisation May Enhance Ego Development and Self-Esteem

As previously stated, the adolescent's primary developmental task is the formation of a solid sense of self. Deficits in ego strength, evidenced by impulsivity, poor interpersonal boundaries, and inability to manage

powerful emotions (Layman, Hussey & Laing, 2002), complicate this task. Musical experiences such as improvisation offer opportunities for ego development (Frisch, 1990).

Frequently, troubled youth have a negative concept of self and doubts about their worth (Haines, 1989). The way adolescents feel about themselves, including the degree to which they possess self-respect and acceptance is referred to as *self-esteem* (Corsini & Wedding, 1989). Self-esteem is a frequently-cited clinical focus with troubled youth (Peters, 2000). Poor body image and overwhelming shame are related deficits.

Lehtonen (2000) posits that performing and listening to music offer the individual a significant sense of control that aids in the construction of individual self-awareness and self-image. He suggests that

> Meaningful musical experiences start a constructive psychic process which is soon generalized to real life. This process means that the individual gains more control over his musical and real life situations. This offers better self-esteem and alternative ways to cope with life's dilemmas (p. 19).

Ruud (1997) shares this perspective, stating that performing and listening to music contributes to "all areas of development -- emotional, motor, social, and the growth of ego strength or self-esteem." He continues:

> Being engaged in music means being fully involved with all these developmental areas. With the methodological tools and experiences of the music therapist it has been demonstrated how development in general might be influenced. In this sense, music may give competence to the child, it prepares the child to master, to take responsibility for its own conduct. Music empowers us, it gives us a psychological and cultural platform from which to make our own decisions on matters concerning our own life. When we are successfully engaged in music, we feel we are "somebody", we gain the right to raise our own voice (p. 96).

Self-esteem has been the focus of music therapy treatment and research among various groups of adolescents, namely "rebellious and maladjusted" teens, survivors of abuse, and those with learning and behavior disorders (Haines, 1989; Henderson, 1983; Johnson, 1981; Lindberg, 1995; Michel & Farrell, 1973; Michel & Martin, 1970). Projects designed to modify and measure self-esteem with individual clients have also been undertaken (Kivland, 1986). A primary emphasis of these projects has been the use of instruction- and performance-based music experiences (i.e., re-creative); however, authors have also referred to the use of improvisation to contribute to the clients' sense of mastery and confidence (Clendenon-Wallen, 1991; Frisch, 1990; Tervo, 2001). While standardized measures, such as the Coopersmith SEI and various adjective checklists, have yielded inconsistent results, many authors note positive changes in self-esteem "indicators" as a result of music

therapy interventions. Such indicators include voice, posture, and affect (Ragland & Apprey, 1974), motivation and attitude (Haines, 1989; Michel & Martin, 1970), healthy risk-taking, decision-making, and personal hygiene (Gardstrom, 1993), and positive self-statements (Kivland, 1986).

Improvisation May Enhance Self-Expression

Troubled adolescents typically exhibit emotional lability and have great difficulty identifying and expressing their feelings in a healthy manner (Peters, 2000). Youth who have been seriously abused often cope with their feelings by withdrawing, "numbing," or dissociating. Because they present no management problems, withdrawn and depressed individuals tend to be overlooked by treatment staff and their needs for self-expression neglected (Frisch, 1990). At the other extreme, difficult feelings are acted out in ways that breach the established norms of society. Rebellious and violent acts toward self or others are perhaps the most common display of such anti-social conduct.

A primary treatment goal, then, for troubled adolescents is to enhance the identification and working through of feelings (Dvorkin, 1991). Emunah (1990) writes

> Given the tensions on all levels - physical, sexual, mental, emotional, social, psychological - it is no surprise that adolescents are on the brink of explosion...a form of expression is desperately needed, one which matches the intensity and complexity of their feelings...(p. 102).

She suggests that the creative arts therapies, including music therapy, can meet both the need for solitary expressions of inner changes as well as the need for external and collaborative expressions of adolescents. That such opportunities for self-expression may have been denied prior to treatment may account for adolescents' strong attraction to music therapy (Frisch, 1990).

Improvisatory experiences can elicit and support both verbal and nonverbal forms of self-expression (Bruscia, 1987; Pavlicevic, 1997, Ruud, 1998). The nonverbal nature of improvisation assists youth in at least three identifiable ways: First, it may be an effective and satisfying experience for those clients who have intellectual or verbal deficits, many of whom may be unsuccessful in other kinds of experiences (Aigen, 1996). In the realm of spontaneous music-making, all players can be equalized. Second, nonverbal experiences do not allow adolescents to hide behind their "tough talk." Music can break down defenses and provide for more honest expression of thoughts and feelings (Heal, 1989; Priestley, 1994).

Finally, improvisation may afford access to deeper levels of experience and expression. According to Skaggs (1997), the symbolic nature of music "elicits perceptions not always available through verbal language and, therefore, presents a larger field of experience from which understandings and choices can emerge" (p. 75). Frisch (1990) notes, "It is the nonverbal, symbolic aspect of music that makes it a nonthreatening and alluring mode through which to communicate" (p. 19). (The symbolic nature of music will be discussed in greater detail below.)

The myriad elemental structures inherent in music, as well as its familiarity and predictability, serve as a safe container for the adolescent's expressions (Frisch, 1990; Tervo, 2001). As clients achieve a balance between cathartic expression and containment through creative arts experiences such as music improvisation, they acquire a sense of mastery over their emotions. Internal, self-destructive experiences are channeled into safe and productive outward expression (Lehtonen & Shaughnessy, 1997). The notion of channeling difficult emotions into music is frequently mentioned in the literature. Montello and Coons (1998) find that

> group music therapy can facilitate the process of self-expression in emotionally disturbed adolescents and provide a channel for transforming frustration,

> anger, and aggression into the experience of creativity and self-mastery (p. 49).

Lehtonen (2001) agrees, writing, "Music also forms an excellent channel for outbursts of strong and repressed emotions by giving an opportunity for the expression of symbolic aggression through creative artistic action" (p. 33).

Improvisation May Promote Interpersonal and Social Relationships

Interpersonal and social difficulties are common among troubled youth, in that these individuals lack the skills necessary to form and maintain relationships and manage interpersonal conflicts (Brendtro & Ness, 1983). Specific interpersonal problems often stem from difficulties in the areas of self-expression and self-esteem (Rio & Tenney, 2002). Uncooperative behavior in social settings, poor peer relationships characterized by anger and sarcasm, and withdrawal, manifested in minimal interaction and verbalization, are common characteristics of troubled adolescents (Cassity & Cassity, 1995). Many adolescent clients transfer deep-seated fear and mistrust from their chaotic or abusive families onto relationships outside of the family system. Thus, it is not uncommon for troubled teens to appear hostile, indifferent, guarded, or

superficial upon first meeting in their attempt to avoid ridicule or rejection from a peer or adult (Gardstrom, 1996).

Music therapy can be a port of entry into healthy relatedness with others (Brooks, 1989; Frisch, 1990; Sears, 1968; Stephens, 1983). Saroyan (1990) insists, in fact, that the primary purpose of music therapy group treatment for adolescents is to build trust and foster vital social skills of cooperation and interaction. Rio and Tenney (2002) echo this notion, writing, "Meaningful musical experiences can contribute to the development of interpersonal relationships, even significant attachments in adolescents who may not have experienced these previously" (p. 97).

Interpersonal problems among troubled adolescents can be assessed and treated in the context of the musical inter-relationships that develop between the therapist and the client, and between the clients and their peers as they engage in improvisatory experiences. Tervo (2001) reflects upon adolescent clients in residential treatment - their initial experiences of profound emotion (anxiety, anger, etc.), their resistance and working through, and their ultimate group cohesion:

> At first the adolescent attempts to avoid pondering internal conflicts, but later might be able to better cope with them with the support of the therapist. During this time the playing becomes more instinctive and the players learn to anticipate each other. A shared sense of humour, the songs and the musical language created together all make for improved co-operation. The music no longer acts merely as a defence or as a performance, but rather becomes a deeper shared experience (p. 82).

Improvisation May Allow for Meaning-Making

The positive influence of all four music therapy methods on the physical, cognitive, emotional, and interpersonal needs of adolescents in treatment is well-established in the professional literature. However, changes in these aspects of an adolescent's functioning may be ultimately dependent on whether or not the method or intervention used holds *meaning* for the participants (Rio & Tenney, 2002).

The period of adolescence, with its attendant challenges, complications, and hardships (not the least of which is the struggle to develop a healthy concept of self in relation to others) can produce a profound sense of meaninglessness and alienation. Many teens feel isolated from self, family, peers, and society at large. This disconnection can be further intensified by the segregation accompanying inpatient treatment (Frisch, 1992). A sense of meaninglessness and isolation can lead to depression,

often associated with poor academic performance, adolescent pregnancy, eating disorders, and life-threatening actions such as substance abuse and suicidal behavior (Hendricks, 2001).

Humanistic psychotherapeutic approaches (e.g., Person-Centered, Existential, Gestalt, etc.) maintain that emotional and behavioral disorders result when individuals fail to find meaning and purpose in their lives. Music treatment from these perspectives focuses on the development of interpersonal rapport so that clients feel safe to explore basic issues of life (e.g., death, freedom/groundlessness, isolation, and meaninglessness [Yalom, 1980]) in order to move to a state of self-actualization and well-being (Bohnert, 1999; Peters, 2000).

Lehtonen (2001) refers to the importance of meaningful "life spaces" in his work with institutionalized youth. He asserts that the destructive acts of troubled youth "are often functional symptoms caused by a seemingly insignificant and meaningless life accompanied by strong signals for help from the environment" (p. 24). Filling these individuals' lives with meaningful musical experiences results in the radical decrease or disappearance of such destructive behavior, general aggressiveness, and criminal activity. Lehtonen writes

> The profound correspondence of music with our thinking and emotional processes can in many difficult destinies be like a "life buoy" that can revive a "meaningless," "emotionally dead" or "desolate" psychic reality filling it with vital functions anchored in desire for life. The realization of a musically "meaningful" world arouses new perspectives directing extensively the human psychic reality, vectors through whose introduction the direction of life choices change this awkward phase and is renewed (p. 33).

Improvisation affords opportunities for both intrapersonal and interpersonal meaning-making (Pavlicevic, 1997, Bruscia, 2000a). Meaningful improvisational experiences can help combat troubled teens' feelings of alienation and "inner restlessness" (Lehtonen & Shaughnessy, 1997) and infuse their lives with a sense of purpose. With purpose may come the resolve, motivation, and flexibility to confront crises and embrace the challenges of personal transformation (Lehtonen, 2000).

Meaning in Music Therapy

Pavlicevic (1997) states that a clear understanding of why and how individuals find meaning and significance in music serves as "one of the tenets underpinning clinical practice" (p. 27). If meaning is central to the work of music psychotherapy, why the absence of this issue in the professional literature until recently? One fundamental reason may be that meaning itself is an abstruse concept -- one that is quite difficult to define or characterize,

detect, and explicate. As Stige (1998) notes, meaning is most definitely a compound construct made up of many intricacies and entanglements:

> Discussion of meaning in music therapy is quite complex. Such a discussion must embrace the meaning of music, of body language and of verbal language, the relationship between each of these in their own context, and the meaning of meaning in music therapy, that is, what kinds of meaning are essential to change in therapy? (p. 20).

Rather than grapple with such immense challenges, clinicians (as well as theorists, educators, and researchers) may succumb to what they perceive as more delimited and manageable conceptualizations of the therapeutic process -- the goals, activities, and techniques to which Amir (1992) refers.

Another probable reason that meaning has heretofore been scantily addressed is that, as is evident in the literature, professionals in the field have multiple perspectives on meaning in clinical music therapy (Smeijsters, 1997). Not only may our individual viewpoints differ from those of our colleagues, but our own positions may alter over time with professional and personal changes and maturation, as well as within and between clinical sessions. This multiplicity of perspectives and the "fleeting" nature of meaning may be seen as contributing to the hardships of systematic study and articulation.

Aesthetic Theories and Locus of Meaning in Music

One of the first questions to arise in the study of meaning in music therapy is, Where does the meaning come from? Does meaning reside within the music? Is it constructed by the listener/player? Or, does meaning result from some interaction between the music and the participant? Concern for meaning in music has traditionally been addressed in discourse related to musical aesthetics, a branch of philosophy arising in the 18th century and stemming from general aesthetic theory (Bowman, 1998). As philosophers of the 19th century attempted to understand and describe mechanisms of beauty and meaning in music (and the other fine arts), three distinct aesthetic positions were crystallized. These are worthy of cursory inspection here.

In *absolutism* (sometimes called *absolute formalism*), the meaning of music is found solely within the musical elements and the way they are organized. This philosophy

> asserts that the meaning and value of a work of art are to be found in the internal qualities which make the work a created thing....In music, according to Absolutism, the sounds and what they do are inherently meaningful, and if one is to share their meaning one must attend to the sounds and not only to what the sounds might remind one of in the extra-artistic realm outside the music (Reimer, 1989, p. 22).

Attention to the "extra-artistic" realm typifies *referentialism*. This viewpoint holds that in order to find meaning and value in music, one must look outside the work itself. That is, music serves to refer the listener to an idea, emotion, attitude, or event. To the extent that this idea, emotion, etc. is of importance to the listener, the music itself has import (Reimer, 1989).

One point requires further elucidation here. As mentioned above, clinical improvisation may involve the use of a nonmusical referent, such as an event or feeling, as an organizing feature. Yet the fact that a referent is offered to structure an improvisation before it occurs does not imply that the meaning of that improvisation for the participant will necessarily be referential, or extra-musical. It is possible that meaning will be discerned strictly in or from the music that unfolds during the course of the experience.

From the referentialist perspective, some meanings are culturally determined, whereas others are idiosyncratic and related to personal life experiences. To edify the latter, that is, *associative* meanings, Pavlicevic (2000b) writes

> Other associations are more personal, such as the feeling that a particular song evokes because of its significance at a time in our life when we were deeply in love, or deeply saddened by the death of someone close to us, or whatever....The emotion that a piece

> of music arouses in me, and the meaning of this emotion, may be incidental to the music. It may have more to do with who I am, and with how I feel at the moment of listening (p. 15).

Whether music is a language and precisely what it communicates has been rigorously debated in discussions about meaning in music (Jungaberle, Verre, & DuBois, 2001). In ordinary language, words serve as symbols; they have a specific and (usually) finite meaning. That is to say, there is a direct and unquestionable relationship between the words and the objects they represent, albeit culturally or subculturally determined. Yet music is not a language in the conventional sense (Langer, 1953, 1979). It is not a symbol or icon with a fixed referent, as are words, but rather is flexible and ambivalent, allowing for manifold and even contradictory meanings within the same piece (Reichling, 1993). If music is not a language, then what is it?

Langer, whose ideas gave rise to *absolute expressionism*, describes music as a *presentational* or *articulate form*, a "nondiscursive" symbol for the articulation of subjective experience. Words often fall short in our attempts to express our immediate sentience and the myriad complexities of human life, such as feelings, desires, ambivalences, and intricacies

(Reichling, 1993). Thus we seek alternative symbolism through music. As an articulate form, music derives its meaning from its similarity to the forms of human feeling, that is,

> ...forms of growth and attenuation, flowing and stowing, conflict and resolution, speed, arrest, terrific excitement, calm, or subtle activation and dreamy lapses -- not joy and sorrow, perhaps, but the poignancy of either and both -- the greatness and brevity and eternal passing of everything virtually felt (Langer, 1953, p. 27.)

The absolute expressionist would not posit that particular sounds represent particular emotions, but that the dynamism of music represents our "felt life" with its infinite patterns and nuances. In short, music sounds as feelings feel. It has meaning when it mirrors some aspect of our experience that we recognize. Parts of the musical whole, that is, rhythmic, tonal, and expressive elements, maintain their separate integrity and yet fuse together to express complex meanings in much the same way that singular words unite in sentences and larger texts to connote meaning.

These fundamental philsophies of musical aesthetics have not escaped criticism in recent years. For instance, Elliott, a music educator and philosopher (1995), denounces the formalist position on the basis of its implication that only individuals with training in the technical complexities or subtleties of music are fully equipped to

experience meaning in music. He criticizes what we have come to know as "aesthetic education" (musical training rooted in the expressionist viewpoint) on the basis that music is regarded from this perspective as an object rather than a process or event. As such, the emphasis in aesthetic music education has been placed almost exclusively on music listening rather than on music-making activity such as performing, composing, and improvising. Elliot argues for a praxial philosophy in which emphasis is put on our ability to act musically within a given context. He asserts that meaning is found in the active, purposeful, and intentional nature of our musical encounters, which he terms "musicing" (1995).

Aesthetics in Music Therapy

While philosophies of musical aesthetics and music education make a significant contribution to this discussion, it is important to review meaning in music as embodied in the music therapy literature. Much of what has been published in this realm revolves around a constructivist viewpoint.

Meaning as Constructed

The constructivist perspective holds that meaning is idiographic -- each individual generates his or her own meaning based on unique perceptions and life experiences

(Jungaberle, Verres & DuBois, 2001). Bruscia's theory of sources of meaning in music therapy (2000a) will shed some light on this position. He asserts at least three sources of meaning in music therapy.

The first source is *Meaning as Implicate Order*, that is, meaningfulness itself as it exists in the universe. One might think of this as absolute reality that exists "*a priori* and independent of our constantly varying constructions of it" (p. 85).

The second source is *Meaning as Experienced,* That is, direct, ineffable human "samples" of the implicate order. These samples are described as "small glimpses into the meaningful nature of *what is* from our own personal positions" (p. 85). Such glimpses are available to us through our conscious awareness of the universe and ourselves as subjects and objects within it. *Meaning as Experienced* relies on our capacity for focusing (deepening our experience of the implicate order), refocusing (taking a different sample), and broadening (enlarging our experience) our consciousness.

The final source is *Meaning as Constructed*, that is, reflections of meaning that stem from our individual and collective life circumstances and that are represented via thought, language, the arts, etc. Constructed meaning is

epiphenomenal and thus a reduction or distortion of the direct experience. In the construction, deconstruction, and reconstruction of meaning about music experiences, then, we are left with what Bruscia terms an "artifact" of the original meaning. This is especially evident in cross-modal meanings, for example, the representation of meaningful music experiences through the spoken or written word.

Bruscia (2000a) further theorizes that constructed meanings may be one or more of three types: client-constructed, therapist-constructed, and client-therapist co-constructed meanings. Client-constructed meanings may predominate when the client is nonverbal, when the client is resistant to interaction with or offerings of the therapist, or when meaning is not explored after the improvisation. Therapist-constructed meanings may prevail in the same circumstances as client-constructed meanings, as well as in clinical assessment in which the therapist is considered to have more expertise than the client, the client is unable to participate in meaning-making, or has deficits in this area. In these two types, there is no attempt to find consensual meaning; rather the client or therapist construes his or her own meaning. As the name implies, in co-constructed meaning, "the client and

therapist develop consensual meanings, or at least determine which meanings are shared and which are not" (p. 4). According to Bruscia, prerequisites for co-constructed meaning are verbal discussion of the improvisation, a common language, consensus as to the meanings of words used to describe the improvisation, agreement as to the essence of the music itself, and direct entré into and accurate knowledge about the other individual's constructions.

Situated Meanings

Stige (2002) also argues that meaning is constructed and that such constructions are based upon the relationships formed between the inherent structures of the musical object and its context. Not unlike Elliot, Stige believes that such contexts may be personal, local, and universal. He writes

> [music therapists] must take into consideration that issues of meaning in music therapy do not only relate to music; they relate to the biography of the client, to the clinical understanding of the therapist, to the immediate communicational context, and to the cultural context of the therapy situation (p. 49).

Stige goes on to assert that whatever the context, meaning-making is always connected in some way to the aesthetics of the therapy situation. Furthermore, the aesthetic values articulated for "high art" may not apply to music therapy practice. He notes that the therapist must work to find a

medium between an essentialist perspective, in which aesthetic dimensions of form, wholeness, and unity are considered to be necessary precursors to meaning, and a "laissez-faire" perspective in which the music or music-making of the therapist and client are not taken seriously. For example, disjointed sounds may not yield a judgment of beauty, but when produced in the therapeutic context they may have great meaning.

Praxis Aesthetic

Aldridge (personal communication, 2003) also writes about the importance of the aesthetic in the therapeutic setting. He uses the term *praxis aesthetic* to distinguish between objects (music) produced as art and objects (music) produced in therapeutic practice.

Aldridge contends that each of us is a performed being, that is, "we realize ourselves in the world, mentally, physically and socially as performances." We exist in the world in our bodies, and it is through the functioning of our bodies -- namely gesture, action, and dialogue -- that we perform and are recognized in the world. When our bodies experience disturbances in such functioning, our performance is jeopardized. The body aesthetic is compromised. The goal of therapy, then, is to

help an individual move beyond disruptions in functioning that have resulted in a loss of aesthetic.

The aesthetic (here used to represent concepts of meaning and value) can be restored through use of the organizational property of music, that is, time experienced as musical form. According to Aldridge, the basis of meaning in musical interaction comes from being able to discern structure in the spontaneous gestures and utterances of another person. These expressions, when incorporated into a musical form, become purposeful communication. Such communicative efforts are linked to form dialogue, both personal and social. This dialogue is a key component of our performance of health, for without it, "we lose a sense of meaning for ourselves, and we lose meaning as a person in a social context."

Types of Meaning

A further distinction in the study of meaning is what type of meaning is being explored. Several authors in the field of music therapy have speculated about types, levels, or forms of meaning (Amir, 2000; Bruscia, 1987, 2000b; Erkkila, 2001; Ruud, 1997) with terms such as *cognitive* or *intellectual meaning, psychoanalytic meaning,* and *existential meaning.*

Cognitive meanings relate to operational thought processes, which are tangible and logical. Such meanings are characterized by a basis in intellect and an obvious lack of emotion, metaphor, or symbolism. Cognitive meanings in music require some degree of musical wisdom, such as knowledge about theoretical and/or formal structures.

Psychoanalytic meanings assume that the client's improvised music is a projection of unconscious aspects of the self. Thus, meanings from this perspective are symbolic in the sense that certain musical elements and the way they are organized and expressed represent certain aspects of the client's identity (Priestley, 1994). For example, the rhythmic elements of pulse, subdivision, tempo, meter, etc. may be considered indicative of basic instinctual drives, whereas tonal elements such as melody and harmony may be considered a representation of feeling states (Bruscia, 1987). Furthermore, from a psychoanalytic perspective, musical processes correspond to psychological processes of the individual.

Existential meanings relate to the individual's perceptions of their life experiences. From an existential reference point, each individual negotiates their "Be-ing" within three realms of existence: 1) their physical world;

2) their internal psychological reality; and 3) their interpersonal and social systems (Bruscia, 1987).

The aforementioned characterizations of meaning in music-making are relevant to this project in that each researcher's unique clinical biases and aesthetic perspective will clearly influence his or her methodological approach to the analysis of clinical improvisation (Lee, 2000).

Analysis of Clinical Improvisation

The analysis of clinical improvisation serves one of two overarching aims. The first is to inform clinical practice with a specific client or group of clients. Here analysis can help the therapist better understand the client's needs, as well as evaluate the client's progress and treatment efficacy. The second reason to engage in analysis is to inform research and theory development. In this case, analysis can help the therapist gain insight into the role and nature of improvisation as a therapeutic method (Bruscia, 2001).

Although clinical improvisation has been used and described by many individuals for decades (Alvin, 1975, 1976, 1978; Bitcon, 1976; Nordoff & Robbins, 1977, 1983; Priestley, 1975), interest in its systematic analysis and interpretation has emerged only recently in this country.

A few researchers have taken a predominantly quantitative approach to the analysis of therapeutic improvisations (Thaut, 1988; Wigram, 2000). Others, focusing on the experiential and idiographic nature of the process of improvisation, have embraced qualitative methods. Whereas the quantitative researcher selects and measures specific variables thought to be linked to meaning for purposes of prediction and control, the qualitative researcher espouses a more holistic view in which they seek to understand and describe meaning rather than measure it (Bruscia, 2001). This is consistent with the basic aim of qualitative research, which is to broaden knowledge rather than confirm it (Forinash & Gonzalez, 1989; Langenberg, 1999).

Role of the Researcher

From a traditional quantitative perspective, the researcher's direct involvement with participants in a study would be an infraction against objectivity and would be perceived as diminishing the validity of the investigation and its findings. In contrast, qualitative researchers seek to be fully engaged with the participants and the research situation, employing their values and human attributes rather than suppressing or disavowing them (Aigen, 1996). This direct involvement stems from an epistemological belief that all knowledge derives from the

"interaction between the knower and the known" (Aigen, 1995, p. 293). One important implication of this position is that, no matter how impartial the researcher attempts to be in the analysis and description of an improvisation, these processes are necessarily mediated and impacted by the researcher's unique attributes (Smeijsters, 1997).

Analytic Procedures

In a recent article about qualitative analysis of client improvisations, Bruscia (2001) asserts that the researcher employs a suitable method of analysis based on multiple sequential decisions related to focus, types of data, listening techniques, musical part-whole relationships, aural analysis, and music description. Final procedural steps involve the interpretation, synthesis, evaluation, and presentation of findings.

Focus of Analysis and Types of Data

One of the first and most critical choices made by the qualitative researcher is whether the focus of the analysis will be the process (the participants' actions and interactions as they unfold over time), the product (the musical materials produced from the experience) and/or the experience itself (the thoughts, feelings, perceptions of the participants).

Clearly, data subjected to analysis are related to the analytical focus. When the emphasis is on product, data may include the improvisation as aural object (heard or reheard via audio or videotape) or the improvisation as visual representation (musical score). In the analysis of therapeutic process, data may consist of audio or videotapes of clinical sessions with particular attention paid to events, actions, and interactions over time. Finally, data stemming from expressions of participant experience typically take verbal form (spoken or written text) but may also consist of movement or some form of visual arts.

Analysis of Process. In an attempt to more fully understand the creative process, Kratus (1989) studied the compositional processes of children ages 7 to 11. Judges evaluated and described the musical processes employed every five seconds during a 10-minute period of time during which the participants were charged with creating "a brand new song, one that no one has ever heard before" (p. 9). Although the focus of his study was composition, Kratus found that all of the children engaged in two strategies characteristic of music improvisation: exploration (making music that sounds unlike anything played earlier), and

development (making music that sounds similar to, yet different from, music played earlier).

One example of an analysis of the process of therapeutic improvisation is Aigen's 1998 study. Over the course of four years, he examined audiorecordings of improvisatory sessions with eight different children involved in Creative Music Therapy with Paul Nordoff and Clive Robbins. Other data analyzed included session summaries written by the therapists, detailed and sequential session indexes, case studies compiled by Nordoff and Robbins, and transcripts of interviews conducted with the latter therapist. Aigen's analytical process consisted of compiling written records containing both objective data and personal intuitions and interpretations. Analytical memos made and reviewed during the process served as the foundation for determining stages of therapeutic work and prominent clinical topics.

Analysis of Product. An emphasis on product can be seen in the work of Swanwick and Tillman (1986), who examined children's creations and noted developmental differences in the use of structure and expression.

Hiller (1993) analyzed audiorecordings of solo referential improvisations. He compared the music of participants' improvisations depicting Real Self and Ideal

Self, using the Improvisation Assessment Profiles (IAPs)(Bruscia, 1987) as a guide. The IAPs, which were developed to provide a comprehensive model of client assessment and evaluation, consist of three procedural steps: 1) observe the client improvising under various conditions, 2) analyze the improvisations using six specific profiles and subscales, and 3) interpret the findings from a relevant theoretical perspective such as developmental or psychoanalytic. Included among Hiller's data were audiorecordings of the actual improvisations, summaries of participant interviews, and results from a standardized self-concept scale.

Leeseberg (1994) also used the IAPs to analyze and interpret sound portraits of adults. She asked clients to produce four improvisations: 1) a self portrait, 2) a portrait of each family member, 3) a portrait of self with each family member, and 4) a portrait of a family gathering. Data subjected to analysis included audiorecordings of the musical improvisations and transcripts of the entire session, which included verbal reflections of each participant. Each improvised portrait was analyzed separately, with its salient features subjected to scrutiny using the relevant IAP profiles and scales. Improvisations of each participant were then

compared and contrasted. Information from textual transcripts was integrated with musical interpretations.

Lee (1989) focused predominantly on the musical product in his Shenkerian-based analysis of tonal clinical improvisations with an individual client. Lee augmented the musical data with behavioral observations and clinical information in order that "greater insight may be achieved in viewing more closely intricacies of the music therapy process" (p. 18).

Analysis of Experience. The experiences of participants in clinical improvisation have been the focus of analysis in several studies (Aigen, 1997; Amir, 1992; Forinash, 1992; Langenberg, Frommer & Langenbach, 1996; Smeijsters, 1997). A wide variety of phenomenological methodologies have been used.

Hoping to understand the "feelings and thoughts involved in the interpersonal encounter that is the basis of improvisation," Langenberg, Frommer, and Langenbach (1996, p. 157) analyzed several individuals' written descriptions of one improvisational session. Emphasis was placed on how listeners described aspects of the music resulting from the session as well as how they conveyed their personal experience of it.

Smeijsters (1997) asked clients to respond to his narrative summaries of improvisational experiences.

Amir (1992) studied "meaningful moments" in music therapy of both therapists and clients. Participants were asked to reflect on and talk about prior experiences within the clinical setting that held significance for them, which for some individuals included vocal and instrumental improvisation. Amir dialogued with four therapists and four clients using Spradley's (1979) concept of the ethnographic interview as a guide. Questions posed were of five types: Grand-tour ("When you think of your experience as a client in music therapy what comes to your mind?"), Mini-tour ("Can you give me examples of these musical experiences?"), Example ("Can you describe the musical improvisation in more details?"), Experience ("How did you feel?"), and Native language ("Can you explain to me with your own words what you mean when you say this word 'healing?'") (pp. 216-217). Only textual data (interview transcripts, process notes, and analytic memos) were analyzed.

As is typical in qualitative inquiry, Amir's analytic process began with the first interview, continued throughout the data collection phase, and made use of a complex series of procedures. Upon an initial review, raw

data were organized into units that assisted in categorization. Categories for each interview included client's/therapist's background information, examples of meaningful moments, and reactions to and explanations about the meaning of the experience. Upon a second review of the data, Amir developed subcategories for each interview, such as emotional reactions, physical reactions, and so on. During the next phase of analysis, new core categories were discovered through the process of cross-analysis of each interview. Links between categories led to the establishment of core categories such as conditions that allowed for intrapersonal experiences, perceptions of self, music, and music therapy trust, and client-therapist relationship. Written profiles of each participant enabled Amir to form categories of meaningful moments related to all clients' profiles and all therapists' profiles. These were compared to reveal that 12 of 15 categories overlapped. Categories were organized and refined a final time, and the findings enscripted.

In another phenomenological study, Forinash (1992) conducted verbal interviews with participants involved in clinical improvisation in order to learn more about their experiences. She viewed clinical videotapes with eight music therapists and interviewed the individuals about

their lived experiences of improvisation. All therapists were trained in Nordoff-Robbins Clinical Improvisation (Creative Music Therapy). Dialogue unfolded spontaneously during the interview process in an open-ended fashion. Forinash subjected the textual data (i.e., transcripts of the interviews) to phenomenological analysis (Giorgi, 1984). The actual improvised music from the clinical sessions was not included in the analysis.

Steps in the analytic process included 1) reviewing the transcript to get a sense of the whole of experience, 2) reviewing the transcript more carefully and in detailed fashion to discern "meaning units" (while bracketing presuppositions and biases), 3) translating descriptions of units into psychological language and searching for invariants of the phenomena, 4) reflecting further on the meaning units in order to form written descriptions of the experience of improvisation, and 5) submitting the written descriptions to each therapist for their validation.

Stages in the Aural Analysis of Musical Product

Bruscia (2001) describes three techniques that may be employed in the initial phases of the analysis of an improvisation as an aural object. The first is *free open listening*, in which the researcher brackets a natural way of perceiving and responding to the world in order to

"notice what captures the ear or imagination from one moment to the next" (Bruscia, 2001, p. 12). The second phase of listening is termed *focused open listening*, in which the researcher may focus on one aspect of the improvisation at a time, such as the most noticeable musical element(s) or an image or thought triggered by the music. In the third type of listening, *positioned listening*, the researcher situates the listening in one or more perspectives other than his or her own, such as the client's or a nonimprovising "audience" member. With each technique, written descriptions are recommended (Bruscia, 2001).

An additional decision in aural analysis includes whether the focus of subsequent analysis will be a section of the total improvisation, an event within the entire improvisation, or the entire improvisation with an emphasis on determining part-whole relationships. Lee (2000) suggests that the sample chosen for analysis be somehow relevant to the entire therapeutic process.

Next, the researcher engages in repeated listenings with attention to one or more specific focal points. Specifically, the researcher analyzes the musical elements (What is occurring rhythmically, melodically, etc.?) and the relational aspects, including intramusical (What are

the relationships within the individual's music itself?), intrapersonal (What are the relationships between the musical and nonmusical aspects of the individual?), intermusical (What are the relationships between the individual's music and other individuals' music?), and interpersonal (What are the relationships between the musical and nonmusical aspects of the individuals involved?).

Musical insights resulting from listening and analysis are articulated in detailed descriptions. These descriptions may serve to 1) narrate as completely as possible in musical terms what is perceived, or 2) identify musical regularities and relationships. In the first, no inferences or generalizations are made; rather the data are depicted as neutrally as possible. In the second, musical inferences are necessary in order to categorize and draw connections between what is conspicuous and what is latent in the music itself. It can thus be said that the second level allows for the interpretation of musical meaning (Bruscia, 2001).

Studies of Improvisation With Adolescents

This project was founded on the premise that there is great merit in broadening our understanding of how troubled adolescents experience clinical improvisation through

attention to and systematic inquiry of this phenomenon. For the profession as a whole, the value of increased understanding lay in being able to substantiate and endorse the various reported benefits of this method and to explore new possibilities for its use in clinical practice. Knowledge gained about the lived experience of improvisation may also stimulate additional qualitative research and inform theory development with unique populations.

For the music therapist working specifically with troubled adolescents, the benefits of understanding a client's improvisation are manifold. First, the mere endeavor of the therapist to understand a teen's improvised music and the meaning ascribed to it may be perceived by the teen as an attempt to understand them, a demonstration of investment in their well-being, and a show of compassion upon which trust and rapport can develop. Without rapport, interactions with troubled youth may be characterized by resistance and frustration beyond that which is typical of other clientele.

Second, because improvisation can be a highly personal experience in which various aspects of the self are presumed to be projected onto or poured into the music, a more comprehensive understanding of a client's musical

expressions and creations can lead to a more comprehensive view of the client and his or her attendant physical, emotional, and cognitive states and tendencies. This construct seems particularly important in therapeutic work with adolescents; analyzing authentic musical processes and products as a way to learn more about a client's current and overall state of being may allow the music therapist to bypass the adolescent's initial reticence to reveal who they are and how they think and feel. Expanded awareness enables the therapist to make more confident and effective in-the-moment clinical decisions toward meeting the client's needs.

Likewise, the therapist with insight into what is meaningful for an adolescent who is engaged in improvisation may be able to broaden and deepen that immediate experience (providing she has the skills to do so). Developing the capacity to experience more fully the range of human emotions possible through interpersonal and aesthetic experiences such as co-improvisation is a valid treatment objective for many troubled teens, especially those who have anaesthetized their feelings in order to cope with past or ongoing trauma.

Additionally, as the therapist enlarges her perspectives on meaning in improvisation with one client,

she is perhaps able to more quickly and judiciously respond to other adolescents in future situations. Conversely, without some clarity about the construction and co-construction of meaning through improvisation with youth, clinical decisions related to treatment via this method may be unclear or misguided.

With the exception of Aigen's (1998) research with adolescents with developmental delays, the studies that have been reviewed up to this point have centered on the improvisational processes, products, and experiences of music therapists and their *adult* clients. Despite various claims that improvisation is a meaningful and beneficial undertaking for troubled adolescents (as defined above), there appears to be only one published study whose focus is meaning in improvisation with this population. This study was conducted by McFerran-Skewes (2000), who believed that grieving adolescents needed opportunities to express themselves without being perceived by adults as "naughty teenagers."

Each of the participants, who ranged in age from 13 to 15, had lost at least one family member to death. Losses had occurred between 1 and 18 months prior to the study and were the result of accidents, illnesses, and a suicide. Ten weekly group therapy sessions with the researcher were

oriented around both referential and nonreferential improvisations (using a model similar to Stephens' [Bruscia, 1987]), as well as music sharing in which the youth played personally meaningful pre-recorded or live music for their peers. Verbal processing was an integral aspect of each session.

McFerran-Skewes used the IAPs as one of four stages in her analysis of the music resulting from the session. Stages included 1) listening in an open manner to the entire improvisation, 2) listening to the elements from a (music) theoretical perspective, 3) using the IAPs to focus on dynamics of the music, and 4) listening to therapist (self) responses within the improvisation. Narrative descriptions of each stage were written, then summarized into a concise yet comprehensive description of the music.

McFerran-Skewes also analyzed transcripts of in-depth interviews with the teens conducted at the conclusion of the ten sessions. Simply stated, three steps were performed in this phenomenological analysis: 1) key statements relating to the experience of the group were extracted, 2) these key statements were categorized into individual meaning units discerned from the text and preserved in the clients' natural language, and 3) similar individual meaning units were clustered into global meaning

units represented in professional language. Global meaning units were as follows: 1) improvisation offered opportunities for both freedom and control, 2) individuals' music contributions were respected for their significance/meaning, 3) music contributions offered opportunities for altruism and empathy, 4) the opportunity to 'express' the emotions was valuable, 5) the participants expressed feelings associated with their current emotional state in improvisations, and 6) it was most viable to express the discrete emotions through the improvisations (McFerran-Skewes, 2000).

While this study makes a significant contribution to our understanding of meaning in clinical improvisation with youth, some key questions about this topic remain unanswered in this and related publications. This research project was designed with some of these questions in mind.

First, like McFerran-Skewes, most authors have facilitated and reported on group rather than individual work with teens. As a result, we know little about how the adolescent client approaches meaning-making with the therapist in a one-on-one situation. In individual treatment, the meaning derived from or assigned to an improvisational experience may be of a different nature altogether than that resulting from group improvisation, in

which teens' communications are directed at and primary relationships developed with their peers. Can (and will) adolescents -- particularly those who may have had difficulty developing and sustaining positive and meaningful relationships with other adults in familial, academic, and social settings -- develop interpersonal connections with the therapist through musical co-improvisation? Can (and will) the teens allow a genuine musical interrelationship to develop?

A second issue has to do with the use of referential and nonreferential improvisations. We know that the meanings established in each type flow from and revolve around a different source; what we do not know is if or how adolescents might respond differentially to each type of experience. For example, might the provision of a concrete referent help the younger adolescent who has difficulty with abstract thought launch into the improvisational experience more easily or organize their sounds more meaningfully? Or could a referent unnecessarily confine or muddle the meaning-making process, either by delimiting the teen's notions about what "should" be played or by suggesting the creation of pre-musical sound forms from which musical or aesthetic meanings may be difficult to derive?

Further unanswered questions relate to the connection between musical and nonmusical (in this case, verbal) data resulting from inquiry. Although researchers assert the importance of this relationship, often it remains elusive to the reader in the presentation of research findings. Most publications do not furnish companion audiorecordings and, while there are exceptions -- particularly writings about Nordoff-Robbins music therapy and two studies involving the use of the IAPs (Hiller, 1993; Leeseberg, 1994), -- many do not report the detailed, "thick" descriptions necessary to fully elucidate how the musical data supports (or refutes) the nonmusical data or vice-versa. So, while the researcher may in fact have analyzed and integrated both forms of data, the reader is left to wonder not only about critical features of the musical improvisation itself (e.g., instruments used and how they were played, whether referential or nonreferential, salient elements, and formal structures apparent in the product), but about the specific methodology used to integrate the two forms of data. How can the data from the improvised music of adolescents and their therapist be meaningfully integrated with the verbal data resulting from the interviews? Can the process of integration be clearly and comprehensively described so that the "audience" can enter

into the research experience more fully and make sense of the reported findings?

Perhaps the task of integrating various forms of data is complicated by the lapse of time between the improvisational event and the verbal reflection of the event. In most of the previously reviewed studies, clients (and therapists) have been interviewed about their experience after a series of sessions, rather than immediately after playing or within the session, as occurred in this investigation. How will the immediate and ongoing nature of dialogue about improvisational events enhance or detract from the adolescents' ability to talk about their experiences? Will collecting data in this manner enable a more explicit description of the connection between what is created and what is said?

A final question relates to the fact that in few documented incidents of co-improvisation has the sharing of meaning been truly reciprocal. That is, the emphasis has been on the client's perspectives on meaning rather than the therapist's, and in cases where both clients and therapists have been interviewed, this dialogue has occurred independent of one another. What will be discovered in the co-sharing? Where might the client's and therapist's perspectives intersect? What insights will be

gained from the process of talking together about a shared musical endeavor?

In conclusion, it is hoped that knowledge gained via this systematic investigation of the experience of clinical improvisation with behaviorally and emotionally disordered adolescents would stimulate and inform theory development, clinical practice, and additional qualitative research with this unique population.

CHAPTER THREE

METHOD

This project was conceived as a qualitative study grounded in principles of phenomenology. As stated in Chapter One, the phenomenological approach is concerned with the study of direct and immediate human experience and its many facets (Giorgi, 1970). Descriptive phenomenology emphasizes apprehending and describing human experience as fully as possible in order to reveal its meaning. Constituents of such experience may include overt actions as well as internal thoughts, intuitions, emotions, and kinesthetic sensations (Forinash & Gonzalez, 1989). The phenomenon being explored in this study was the experience of clinical improvisation with troubled adolescents.

I assumed the dual roles of researcher and participant. As such, I directly encountered the adolescents and the experience of clinical improvisation. Intimacy with the participants and the research process afforded me immediate access to data that would not have been available to me had I been once removed from the experience (for example, observing another therapist in real time or simply reviewing artifacts of improvisations such as tapes, transcripts, etc.). However, this position

also demanded that I was aware of presumptions and prejudices related to the phenomenon under investigation.

In order to be as forthcoming as possible about my personal involvement in the unfolding of this project, I have included here an epoché in which I have articulated some beliefs, biases, and presuppositions that may have had a direct impact on the study (Aigen, 1995, 1996). Additional insights related to my verbal and musical tendencies appear in the following chapter.

Epoché

The focus on improvisation came from my personal fondness for active, spontaneous music-making. I enjoy and am energized by the creative process of improvisation. Biased in this way, I anticipated that the experience of improvising with adolescents would be a pleasurable and personally meaningful one. This was not always the case.

The decision to study the experience of improvisation with adolescents who have behavioral and emotional disorders (rather than another group of individuals) stemmed from my fascination with this clientele, as well as a desire to make greater sense of my recollections and perceptions of prior clinical work (see Chapter One). I have always felt a particular compassion for and "kinship" with adolescents and a desire to help them, perhaps because

my own adolescent years were fraught with discord and loneliness.

In my work with adolescents, I tend to adopt a highly energetic and fairly directive style of interaction. This may be a manifestation of the erroneous supposition previously stated -- that the growth and development of the client depends largely on my actions as a therapist -- that I need to "do something" for the client in order for the client to be changed. My assertive demeanor may also simply reflect my personality or the fact that I worked with adjudicated adolescents in highly structured treatment programs; I rarely had the opportunity to let the music therapy process evolve naturally, let alone with the client positioned at the helm. I correctly anticipated that it would be difficult for me to adopt and maintain a relaxed stance during the improvisations and interviews. This aspect became easier as I progressed through the study and had what felt like "successful" experiences with the youth in which meaningful data were generated. My desire to sustain an attitude of openness to each individual and the process of discovery derived from a belief that my relationships with the clients would be more authentic and that data would be more detailed and vivid if I did so.

Participants

(Note: The terms *client, participant, adolescent,* and *teen* are used interchangeably in the following sections.)

Participating with me in this study were a total of six male and female adolescents from two separate partial hospitalization sites in Ohio. All participants were between the ages of 12 and 17. Site No. 1, Integrated Youth Services (IYS), was an intensive outpatient program for children and adolescents ages 6 to 18. Youth in this program were individuals who were at risk for hospitalization or placement in residential treatment, those who exhibited psychotic or pre-psychotic symptoms or severe emotional problems, and those who were emotionally fragile or prone to anxiety. Individual, group, and family services were provided at IYS. A certified music therapist was employed by the agency as a licensed counselor; she did not provide music therapy services at the time of the study.

Site No. 2 was a residential Intensive Treatment Unit (ITU) for boys and girls ages 9 to 18 who exhibited emotional and/or behavioral problems that prevented them from living in less secure settings, such as their family homes, foster care, or group homes. Partial hospitalization treatment groups were provided for

residents of the ITU as one of many services, including medical care, individual counseling, and transition care.

Individual rather than group sessions were held for three primary reasons. First, I believed that rapport might develop more quickly in an individual setting in which the researcher's attention could be directed toward each participant. Second, the participants' privacy was easier to protect in individual sessions. Finally, as a novice investigator, I believed that I would be able to do a more accurate and thorough job of data collection and analysis for individual versus group treatment.

As with many qualitative studies, this study made use of *ongoing sampling*, in which participants were chosen sequentially on the basis of their ability to inform the investigator on the topic in question (Amir, 1996; Aigen, 1995; Merriam, 1998). Rather than choose all participants prior to data collection, I selected them consecutively and worked with two individuals at a time. Subsequent participants were selected on the bases of their availability and their ability to more fully edify aspects of the data previously collected. This approach to sampling, while not random, is consistent with qualitative sampling protocol (Kenny, 1995; Lincoln & Guba, 1985) and meets certain basic criteria for systematic and ethical

study. For example, participants were representative of the population under investigation (troubled adolescents), they participated voluntarily, and they were engaged in their "natural" clinical/educational environments. Because phenomenological research emphasizes individualized rather than generalized experience and demands detailed, "information-rich" description (Patton, 1990), small participant pools are considered both valid and desirable (Merriam, 1998).

Participant selection occured in conjunction with agency clinicians and administrators based on the following initial criteria: 1) physical and emotional ability to participate in multiple clinical improvisations during the course of the study; 2) verbal ability to articulate their experiences, 3) consent of parent or legal guardian (see *Appendix A - Parent Consent Form*), and 4) willingness to participate in improvisation (see *Appendix B - Participant Assent Form*).

Pilot Participants. (Note: Pseudonyms have been used for the participants throughout this report.) The first two teens, John and Tanisha, served as pilot participants, allowing me to learn how I might best 1) approach the participants, 2) approach the task of improvisation, and 3) conduct the interviews. These two individuals participated

in all aspects of the study as planned. Data from John's protocol is not included in this report. John had cognitive delays accompanied by severe communication deficits, and it was difficult for me to understand his verbalizations well enough to truly accommodate and accurately reflect his experience. Data for Tanisha is included herein.

Procedures for Gathering Data

Data was gathered from four sources and in four phases: 1) the improvisations, 2) the session interviews, 3) the field notes, and 4) the closing interviews (for purposes of discussing participants' overall experience and terminating the research relationship).

The Improvisations. Each adolescent and I were involved in a series of improvisations over the course of multiple individual sessions not exceeding five. These sessions were audiorecorded in their entirety for subsequent and detailed analysis.

The purpose of the study was discussed with each participant at the start of the first session and as needed throughout the remaining sessions. An assent form (see *Appendix B - Participant Assent Form*) was read to each teen as they followed along with their own copy. The form clarified that the participant and the therapist would be

improvising during each session and subsequently discussing the improvisations. The form also stated that the sessions would be audiorecorded. Questions about the purpose or process of the study were invited. I answered these to the best of my ability throughout the study.

During the first session and in subsequent sessions as needed, I presented a *sound vocabulary* (i.e., named each instrument and introduced various traditional and nontraditional playing techniques). Each session also included time for free exploration on the instruments, if necessary or requested, as a way to enable the participant's involvement.

Available to each adolescent were a variety of pitched and nonpitched percussion instruments, such as drums (djembe, doumbek, talking drum, handdrum), tambourine, maracas, triangle, cabasa, claves, guiro, woodblock, agogo bells, chromatic xylophone, soprano glockenspiel, and alto metallophone. An electronic keyboard was requested by one participant but never used. Each player selected his or her own instrument(s) for each improvisation, although on one occasion I disallowed the use of the tubano because of a participant's negative association with the instrument.

Improvisations were nonreferential and referential. A referent was established if the participant requested one

or if I thought they needed one in order to enable full participation. At times I provided a referent, at times I elicited one from the participant. A typical session consisted of one or two duet improvisations, two participant solo improvisations, and one or two further improvisations as selected by the participant. During both solo and duet improvisations, the adolescent was encouraged to begin and end at will, with no restriction on the length of each piece beyond that imposed by the structure of the site schedule or the allotted session time. Sessions lasted anywhere from 30 to 50 minutes each.

During the duet improvisations, I responded to the client using select techniques from the "64 Techniques of Improvisation" as identified by Bruscia (1987) for establishing empathy, structuring, intimacy, elicitation, redirection, procedure, and emotional exploration.

Each improvisation was audiorecorded separately from the session recording in order to facilitate the second procedural phase (see *The Session Interviews* below).

The Session Interviews. The second phase occurred at the conclusion of the improvisations created during the session. Initially, I had planned to play the audiorecording of each piece upon its completion. However, I discovered quickly that the participants exhibited

varying degrees of responsiveness to this aspect of the session. Thus, I modified my approach and gave each teen the option of listening. (Note: In one session, technical problems with the playback system prevented us from listening. In another, a nonparticipating teen was present in the room and audiorecording was prohibited for reasons of confidentiality.) When a participant did not care to listen to the improvisation, he or she was nonetheless encouraged to speak about his or her experience.

I also discovered that the adolescents responded differentially to the verbal processing of the experience. Sometimes they began speaking about the experience immediately after playing without any prompting. Other times, it was necessary for me to initiate and/or sustain conversation about the improvisation that had just ended.

The process of listening was patterned after methods used by Lee (2000). Just prior to the listening, the participant was asked to stop the recording and comment whenever he or she felt something important had happened or generally found it necessary to say something about what they were hearing or experiencing. I also stopped the tape and commented when I felt something important had happened or I felt a need to speak about the music and/or my experiences. I allowed for the selected improvisation or

excerpts to be played as many times as requested or needed for satisfactory exploration and dialogue. Typically only one hearing was necessary. Improvisations were verbally processed to varying degrees of depth, depending upon the situation, the teen's receptivity, and my perception of the need at the time.

Interviews in qualitative research may take many forms, including open-ended, semi-structured, structured (Rubin & Rubin, 1995), individual versus group, recall interviews, and think-aloud protocols (McLeod, 2001). Because the purpose of this phase was to gain greater knowledge about and insight into the participant's experience or, as Rubin and Rubin state, to "discover the world of the interviewee," (1995, p. 8), I proceeded in an open and flexible fashion that invited individualized responses. Minimal structure was apparent in my attempts to orient the discussion around the topic of the experience of improvisation. Rather than using a predetermined, unwavering set of questions as might be used in quantitative approaches, I engaged and responded to the participant with questions and comments that evolved in the moment from the dialogue between us. Examples of probes used are "What was that like for you?" "Could you say more about your experience?" and "What stands out for you?" My

responses to the participant's answers and comments were largely based on verbal response techniques of the Human Relations Counseling Model as outlined by Okun (2002) (see *Appendix C - Advanced Verbal Response Skills*), specifically minimal response, probe, paraphrase, and reflection. Self-disclosure was also used when warranted. I attempted to match the overall communication style of each participant and use language that befit each situation in order to demonstrate a "willingness to enter into the world of the interviewees and accept their norms and values" (Rubin & Rubin, 1995, p. 173).

The Field Notes. Following each session, I wrote field notes about anything interesting or significant that occurred during the course of the session. Content of field notes included basic observations and reactions to the participant and the process. The longer I worked with each individual, the more these comments included feelings, intuitions, and initial reactions. Information from notes often guided further data collection or data analysis (Bruscia, 1995; Merriam, 1998). These notes were extended and/or embellished at various times, such as after I had listened to the audiorecordings of the sessions or specific improvisations.

The Closing Interviews. As is frequently done in qualitative research, I conducted concluding interviews with the participants as one way to ensure that I understood and described the experiences as they meant to convey them (Amir, 1996). (One individual, Erica, stopped attending the treatment program at IYS and was thus unavailable for a closing interview.) The concluding interviews occurred once all improvisation sessions had been completed. Each teen had an opportunity to summarize and clarify their experiences in the project. During this interview, I also addressed any final issues with the teen and thanked them for their participation in the study. This interview was also audiorecorded.

Procedures for Analyzing Data

The analysis of meaning in improvisation can be an extremely complex process, as noted in Chapter Two. Specific analytic methods and strategies in qualitative research such as this are not always "set in stone" but rather may emanate in response to the contextual questions posed in the research setting and moment. This creative process is evident in previously documented attempts to analyze clinically improvised music (Arnason, 2002; Lee, 1989, 1990; McFerran-Skewes, 2000), in which researchers

have modified preexisting methods or generated new ones to address emerging research challenges.

The method that evolved for the analysis of the musical and textual data emerging from this study is presented below.

Step One: Transcription of textual data. Textual data resulting from each session was transcribed. Information that was, upon careful reflection, deemed redundant or irrelevant to the participant's experience in improvisation (e.g., a comment about a teacher's car) was not included in the analysis (Bruscia, 1995).

Step Two: Analysis of the improvisations. This step occurred for both whole improvisations and smaller section(s) that I selected. No less than six improvisations were included for each participant. Each of these was analyzed in accordance with relevant profiles and scales of the Improvisation Assessment Profiles (Bruscia, 1987). Both Intramusical and Intermusical relationships were addressed. Intramusical relationships refer to how the elements and components within the player's improvisation relate to one another. Intermusical relationships refer to how the elements and components within the player's improvisation relate to the music of another person.

A fundamental assumption of the IAPs is that the sounds or music created through musical improvisation are meaningful in and of themselves. The meaningfulness of an improvisation is thus a function of how the sounds are organized expressively in relationship to themselves, to the players, and to any other nonmusical referents (Bruscia, 2001). The six profiles of the IAPs (Salience, Integration, Variability, Tension, Autonomy, and Congruence) and levels within them exist to describe the various ways in which players use, organize, manipulate, and combine each of the musical elements and, in the case of co-improvisation, how they relate these to the music of another player.

Five specific profiles were used in the analysis of the music: Salience, Integration, Variability, Tension, and Autonomy. Salience was used as a preliminary determinant for which elements would be analyzed according to the remaining profiles.

Integration refers to how simultaneous aspects of the music are organized. Scales within the profile describe the extent to which components within each musical element are similar, separate, and independent from one another (1987, p. 404). Gradients within the profile are

undifferentiated, fused, integrated, differentiated, and overdifferentiated.

Variability refers to how sequential aspects of the music are organized and related. Scales within the profile describe the extent to which each musical element or component stays the same or changes (1987, p. 404). Gradients are rigid, stable, variable, contrasting, and random.

Tension refers to how much tension is created within and through various aspects of the music. Scales within the profile describe the extent to which each musical element and component accumulates, sustains, modulates, or releases tension (1987, p. 405). Gradients within the profile are hypotense, calm, cyclic, tense, and hypertense.

Finally, Autonomy refers to the kinds of role relationships formed between the improvisers. Scales within the profile describe the extent to which each musical element and component is used to lead or follow the other (1987, p. 405). Gradients are dependent, follower, partner, leader, and resister.

The analysis of each improvisation proceeded in the following manner:

1) I listened to the entire improvisation/excerpt in an open fashion to get a sense of what was salient.

for

the

2) I listened again and segmented the music into meaning units or formal sections, if applicable.

3) I wrote a *Musical Description* of the improvisation. This was a description and summary of the salient musical elements within each unit based on relevant profiles in the IAPs.

4) Based on the aural analysis and the *Musical Description*, I wrote a brief account of the participant's *Organization of the Musical Elements.* Following each statement or cluster of related statements in this narrative, I included a code abbreviation of the profile and scale that related to the statement. For example, I wrote, "She immediately latched onto the beat that I established (RHY INT-FUSED), doubled it fluidly when she felt ready to do so, and then initiated more sophisticated rhythmic figures, which included syncopation (RHY VAR-VARIABLE)." In this case, RHY INT-FUSED is a code for Rhythmic Integration-Fused and RHY VAR-VARIABLE is a code for Rhythmic Integration-Variable. (A complete list of code abbreviations used appears in *Appendix D - Profile/Scale Code Abbreviations.*)

5) The coding procedure described above was repeated for my music in the narratives entitled *My Organization of the Musical Elements.* For duet improvisations, I described

my own endeavors to organize the music that I played as well as the ordering of my music with that of the participant. For client solo improvisations, I described how I organized what I heard in the participant's music into a meaningful whole.

Step Three: Analysis of the textual data relating to each of the improvisations. In this step, I first read each session transcript in its entirety to get a sense of the whole. Originally, I identified discrete meaning units and established a coding system without having first analyzed the improvisations. However, as I progressed, I could see that I would have difficulty relating these codes to the actual music-making. Based on this awareness and a suggestion from my consultant, I decided to analyze the improvisations first and then highlight participant comments in the text that referred specifically to each improvisation. I coded them according to whether they reflected intrapersonal or interpersonal meanings of the experience. Intrapersonal meanings were inferred from the participants' and my comments about how the elements of our music related to nonmusical aspects of our own experience, like personality, behavior, emotions, etc. Interpersonal meanings were derived from comments about how our music related to nonmusical aspects of each other or how our

intermusical relationships related to role relationships between us (Bruscia, 1987). The abbreviations INTRA-P and INTER-P were used to discriminate between intrapersonal and interpersonal meanings.

I applied this same coding process to my field notes for each session, noting comments that related to particular improvisations and identifying them as intrapersonal or interpersonal. Taken together, data from these two sources served as the basis for accounts of the participant's *Verbal Meanings*. I repeated the process for my own *Verbal Meanings*.

Step Four: Development of Charts and Tables. As an assist to the analytical process, I developed charts and tables. The first charts were comprised of information related to each player's specific improvisations. Data were abbreviated statements and profile/scale code abbreviations from the narratives. These charts were organized into musical columns (intramusical and intermusical) and verbal columns (intrapersonal and interpersonal). Charts appear in the Appendices at the end of this report (F, G, I, J, L, M, O, P, R, S, U, and V).

The tables were a further distillation of musical data from the charts, and depicted the incidences of integration, variability, tension and autonomy for all

players for each specific musical element employed. Elements included rhythm (pulse, subdivision, rhythmic figure, phrasing, and meter), tempo, tonal elements, timbre, texture, and volume. These tables (Tables 7 through 18) appear in Chapter Five: Discussion.

Step Five: Integrate verbal and musical data. During this step, data from various sources were subject to cross-analysis and the meanings integrated. The primary source of data relating to client and therapist experience were the charts, which consisted of text and profile/scale code abbreviations resulting from the analysis of improvisations, session transcripts, and field notes. Musical and verbal data were compared and contrasted. This process resulted in a written portrait of each participant's experience of improvisation; thus six distinct case portraits were generated. This process also produced a statement of what I experienced with each participant; thus six portraits of my experience were created. Portraits appear in Chapter Four: Results.

Step Five: Condense client and therapist portraits of experience. A cross-analysis of all client portraits resulted in one synthesis of what the clients experienced, with elements and characteristics of multiple examples. Likewise, a cross-analysis of all therapist portraits

resulted in one synthesis of what I experienced, with elements and characteristics of multiple examples. These syntheses appear in Chapter Five: Discussion.

Step Six: Compare client and therapist experiences. Similarities and differences between the client and therapist experiences were discerned and articulated. These appear in Chapter Five: Discussion.

Triangulation of Data

Triangulation is a research strategy that involves using several methods to reveal multiple perspectives of a single phenomenon (Denzin, 1978). In my desire to construct as full and accurate a picture of the experience of improvisation as possible, I employed some of the methods consistently recommended by qualitative researchers as they made sense for this project. For example, I observed participants in contexts other than music therapy (such as social skills group and recreation activities) in order to gain an understanding of the features of the culture in which the teens lived and learned. Though observation was limited to settings within the teens' partial hospitalization programs, information gained helped me "situate" the participants within the research context (Aigen, 1996) and, in particular, make greater sense of the participants' comments during the interviews.

I gained access to relevant clinical information about the participants from site records and interviews with staff.

Field notes preserved significant incidents and insights, and a reflexive journal contained my personal reactions to the study (Lincoln & Guba, 1985).

Findings were verified through collaboration with the participants in the closing interview preceding the writing of the final report (Bruscia, 1995a).

A respected colleague served as a catalyst for the process of appraisal. In this capacity, he raised questions related to all aspects of the project. This individual was trained in the use of the IAPs and thus was able to provide helpful guidance as I analyzed the improvisations and integrated the musical and verbal data. On occasion, he listened to improvisations that were particularly baffling to me and offered his verbal comments. Because he did not know or interact with the participants, his perspectives on the musical meaning added a new dimension to my own.

Standards of Integrity

This project was strengthened by ongoing appraisal and attention to how well I was meeting standards of integrity (Bruscia, 1998b), with particular regard for methodological

and personal integrity. I kept in mind several important questions related to data collection:

1. General Method -- Is the method well-suited to the overarching purpose of the study, that of learning more about meaning in improvisation?
2. Specific Procedures -- Do the procedures of data collection, specifically creating, listening to, and discussing musical improvisation allow for meaning to be revealed completely and naturally?
3. Relationship With Adolescents - Do the procedures and the way I conduct them support a relationship in which the participants are willing and able to open up and share their thoughts and feelings about the improvisational experience? Am I acting in a sensitive and responsive manner so that they are able to place their trust in me and in the musical and verbal actions and interactions?

Personal authenticity was a further demand of this project (Bruscia, 1998). If I am acting authentically, I maintain an awareness of who I am in relationship to the adolescents and all that I bring to the inquiry itself, including my strengths and deficits as a musician, music therapist, and novice researcher. Further, this awareness and my ongoing actions need to be congruent. Am I being

clear about my research intent and epistomological aproach? Am I acting out of my personal identity (cultural, professional, etc.) as it relates to all aspects of the inquiry? Am I taking responsibility for the decisions that I make, such as the procedures of data collection I use, including methodological modifications I make in response to the emerging process, and my interpretations of the findings? Am I communicating to other individuals with clarity, accuracy, and thoroughness? In sum, authenticity means that I am honest about who I am and that I own what I do at each step of the research process.

Finally, I enlisted the guidance of a consultant in this process of inquiry (Bruscia, 1998b). This individual, an acclaimed music therapy clinician, educator, researcher, theorist, and author, provided ongoing guidance through each and every phase of the study. Further guidance was sought and received from my doctoral advisor and members of the dissertation committee.

CHAPTER FOUR

RESULTS

This chapter contains the results of the project. I offer discoveries for each case, beginning with introductory information, such as age, diagnosis, family history, treatment history/goals, and functioning at time of study. This is followed by a brief overview of the participant's general responses in the sessions. Case portraits of each individual are then presented, along with three tables for each case: 1) a list of all of the improvisations of the participant; 2) a compilation of musical and verbal data for the participant's improvisations; and 3) a compilation of musical and verbal data for my improvisations with that participant. Musical features addressed include rhythmic elements, tonal elements, timbre, texture, and volume. (Here, volume is used to represent perceived loudness rather than actual physical intensity of sound.)

Four participants from Site No. 1 (IYS) are presented first (Erica, William, Hayley, and Chrissy), followed by two from Site No. 2 (ITU)(Tanisha and Ralph).

Case I: Erica

Introduction

Erica, Caucasian with Cherokee influence, was 17 years old, the elder of two children in her family. When Erica was 14, her mother died of a drug overdose. Erica's father had only minimal contact with Erica and her younger brother, both of whom lived with their maternal grandparents.

Erica's Axis I diagnosis was Bi-Polar Disorder. When in her manic phase, she would use drugs and cut on her arms with razor blades because she did not "feel real." When depressed, Erica would have frequent suicidal thoughts and gestures.

Erica's secondary diagnosis was Borderline Psychosis, manifested in both visual and auditory hallucinations and paranoid delusions. She was on a variety of prescription medications to control her mood swings and decrease psychotic features; however, she reported that she did not take her medication regularly.

Erica's appearance was characteristic of heavy metal enthusiasts: Baggy and tattered jeans, leather neck chokers, and T-shirts bearing the names of rock bands. Her hair was most often black with red streaks and unkempt.

General Responses

Upon our first meeting, Erica pronounced, "Music is a big part of my life. I couldn't live without it. That's just how I am." Although she described herself as immature and impulsive, Erica approached each session with a mature and thoughtful demeanor. She put effort and intention into the improvisational process, taking great care to organize her playing "field" (e.g., selecting an instrument, deciding where to sit, etc.).

Erica talked openly and in far more detail and depth than the other adolescents about the sensations, thoughts, and feelings arising from the improvisational experience. She was also forthcoming about her likes and dislikes with respect to instruments, particular sounds, and entire improvisations.

Although on average Erica played longer than the other participants -- more than eight minutes on one occasion -- she ended both solo and duet improvisations abruptly and without warning.

Portrait of Erica

Erica and I met four times. Each session lasted approximately 50 minutes. During these sessions, she played 1 solo nonreferential, 9 duet nonreferential, 2 solo referential, and 2 duet referential improvisations (see

Table 1). Six pieces were chosen for analysis on the basis of their ability to edify the significant features of Erica's experience of improvisation.

Complete musical descriptions, narratives on the organization of musical elements, and verbal meanings for Erica appear in *Appendix E - Analysis of Improvisations: Erica.* Abbreviated musical and verbal data for Erica appear in Appendix F.

Table 1
Erica's Improvisations

	Type	Instrumentarium
#1	Duet Nonreferential	Erica-doumbek Susan-tubano
#2	Duet Nonreferential	Erica-tubano Susan-handdrum
#3	Duet Nonreferential	Erica-talking drum Susan-djembe
#4	Duet Nonreferential	Erica-doumbek Susan-tambourine,tubano
#5	Duet Referential "Peaceful Dreamy Love"	Erica-soprano glockenspiel Susan-cabasa,rainstick
#6	Duet Nonreferential	Erica-tubano Susan-doumbek
#7	Duet Referential "Frustration"	Erica-tubano Susan-djembe
#8	Duet Nonreferential	Erica-doumbek Susan-talking drum, cymbal
#9	Duet Nonreferential	Erica-handdrum Susan-wooden flute
#10	Solo Referential "Night Fear"	Erica-tubano (mallets)
#11	Solo Referential "My Safe Place"	Erica-soprano glockenspiel
#12	Duet Nonreferential	Erica-handdrum Susan-bongos
#13	Duet Nonreferential	Erica-doumbek (mallets) Susan-tubano
#14	Solo Nonreferential	Erica-alto metallophone

Note. Shading indicates improvisation was included in study analysis.

Rhythmic Elements. All of Erica's improvisations, nonreferential and referential alike, had a highly rhythmic character, owing to her frequent use of relentless subdivisions. However, as shown in Appendix F, neither her rhythmic nor her melodic improvisations were consistently integrated with a pulse. There was a "tripping" quality to her playing.

Erica's rhythmic patterns were mostly invariable, and she tended to repeat specific figures within and between improvisations. She played in duple meter exclusively, employing quarter and eighth note durations. On one occasion she played a brief syncopated pattern. Overall tempo was more constant in duet improvisations than in Erica's solo pieces.

Erica created distinct rhythmic phrases in two improvisations, one rhythmic and one melodic. In one, phrase length was uniform. In the other, assymetric phrases were used.

Tonal Elements. Erica used the melodic instruments only when she was playing a referent of a tender nature. She did not establish resting tones in any of these improvisations, nor did she form cohesive melodic contours.

Rather, Erica played "sound shapes" created by repetitive and energetic motor configurations (left-right patterns) that resulted in incessant yet faltering beating, similar to her drum improvisations. Erica did not use harmony in her tonal pieces.

Timbre. As revealed in Table 1, Erica was particularly drawn to the drums, to the exclusion of the other rhythm instruments available to her. Her most frequent choices were the tubano and doumbek. Although she preferred to use her hands, Erica occasionally used mallets on the drums, and she was quite deliberate in selecting the pair that produced the particular timbre she sought. She mentioned that her ears were hypersensitive and that the tambourine, particularly, confused her. Melodic instruments were used in 3 of 14 improvisations.

Texture. Erica did not tend to use a wide variety of playing configurations in her improvisations. On the drums, she played with single alternating strikes and occasionally used a tremolo.

On the melodic instruments, she used single strikes only; she is the only participant who did not employ glissandi. On the barred instruments, Erica typically restricted her expressions to one register, and she played melodically, never harmonically.

Volume. The volume of Erica's playing was generally stable at *mezzo-forte* and *forte*, the most notable exception being a referential improvisation entitled "Night Fear," in which Erica used a *decrescendo* to bring closure to the end of the piece.

Verbal Meanings. Erica's experience of improvisation was largely intrapersonal (see Appendix F). Initially, she used words like "great" and "fun" to describe her reactions to playing. Later, she described the experience as intensely deep and personal. She recognized that she was able to both evoke and release what she termed "complex" feelings through the process of spontaneous music-making. Erica made comments such as "I don't know what I'm feeling right now. I've got to get a steady emotion so I can play it" and "I was feeling confused and different feelings and emotions all at once. I wanted something that would bring it all out." She described the expression of feelings through improvisation as "emotion pouring out." After drumming on one occasion for close to six minutes, she stated

> Like, when I play the drums it helps me, like, relieve a lot of anger 'cause it's pounding something, and ah, like right now I have a lot of emotions, I guess. I'm mostly angry, er, I don't know why, just, like, frustrated and, like, I don't know how to express it, except by this...

As indicated in Appendix F, Erica related that it was difficult to express herself musically at times, and equally difficult to describe what was happening. She stated, "It's hard to get it out" and "It was a hard thing to play because it actually had some, like, some meaning to me...it's a touchy thing to, you know, even talk about." Yet in all cases, Erica experienced the expression of feelings through improvisation as a healthy release. That is, in playing anger, frustration, sadness, or even confusion, she felt herself move from a state of discomfort or tension to a state of greater ease. This was evident in many of her unsolicited comments immediately following both solo and duet improvisations:

> [Drums] relieve a lot of pressure.
>
> When I play the drums it helps me like relieve a lot of anger because it's pounding something.
>
> Relief, I was getting relief out of it I think, 'cause I played my anger and all that stuff and it makes me feel better...that's relief, really.
>
> Ah, God, that feels good! ...I just kind of let it out and um, I feel better now, I actually can talk a little bit better. I feel less uh, less caged in or something.

Along with a general sense of relief, Erica noted modulations in specific emotional states that occurred while improvising. She made statements such as, "Wow, I can feel my mood changing already...I'm becoming calmer, like, really

calm," "This puts me in a good mood after I play..." and "I don't know, I just feel a little bit happier now."

One referential piece, "Peaceful, Dreamy Love," was based on Erica's perception that music could transport her to a special place -- a fantasy world filled with love, beauty, and peace. She expressed an ardent desire to live in this place that she had constructed and to share the beauty of it with other people. On several occasions, Erica made comments that suggested she had left the "real world" while improvising:

> I was thinking of different things, like in a dream...
>
> The music makes me lose touch with reality a lot of the time...It's like a place I go to all the time...I really want it to be here, you know, I really want to be in that world.
>
> I kind of forgot about my worries and stuff, like I forgot how I felt before.
>
> I guess I just escaped through whatever I was playing.

Most of Erica's comments of an interpersonal nature related to her insecurities about playing the drums (see Appendix F). It seemed important to Erica that her improvisations reflected some level of musical competence. At times, she seemed disconcerted when she was unable to execute or maintain a particular rhythmic or tonal pattern or, as she put it, "to get it right." During the first session, Erica acknowledged some nervousness, and it seemed

as though her willful playing was an attempt to perform for me. Later, her comments reflected several other motivations toward musical mastery. First, Erica described herself as a perfectionist who had to "have everything just right." She also desired to play the drums well because her friends played them:

> I love drums, I'm trying to learn how to play them. I listen to, like, my friends play them and, you know, I really want to play them. So I have that passion, like [speaking to the drum], "Ah, I want to play you!"
>
> I've been practicing on other people's drums...with drum mallets and stuff. Well, my boyfriend's, like, that's the only one. Like, he helped me go like this (gestures a roll)...And he said I did it a lot faster than he did, like, I learned it a lot faster than he did...I was, like, well, "I'm doing better than you!"

A further motivation was Erica's personal frustration with not being able to express herself the way she intended, as evidenced in the following comments:

> Oh God...I can't do what I want to do.
>
> (Sighs) I can't do it. I don't know what it is.
>
> I didn't get it right, like what I wanted to play or how I wanted to play it.

Finally, Erica was impelled toward mastery because it brought her gratification and a sense of attainment:

> I feel kind of happy when I play the same beat as [you] because I'm actually following a beat, you know, like I'm actually doing this.
>
> If I get a beat, like I actually get one, I'll feel better about it; I guess it makes me feel good because

I'm accomplishing something...accomplishing something in music, on the drum...

Portrait of My Experience of Improvisation With Erica

Abbreviated musical and verbal data pertaining to my experience of improvisation with Erica appear in Appendix G

Rhythmic Elements. In co-improvisations with Erica, I often served as a rhythmic ground, playing with a steady pulse, strong accents, and an unwavering tempo (see Appendix G). When we played together, she usually requested that I start with a beat that she could follow, saying that it helped her concentrate and that she felt more comfortable and secure if I was playing too.

I experienced a high level of rhythmic tension in response to Erica's uneven subdivisions and would consequently "cheat" the pulse slightly to maintain some semblance of steadiness.

I used a variety of rhythmic figures in my pieces, and played in duple meter exclusively. On the two occasions that rhythmic phrasing was salient in our co-improvisation, I synchronized with the length of Erica's phrases.

Tonal Elements. I used only one melodic instrument with Erica in a short duet for wooden flute (minor pentatonic) and handdrum. This piece was not analyzed.

Timbre. As shown in Table 1, the instruments I elected to play in our co-improvisations had a "voice"

similar to Erica's. I stuck with one instrument throughout the course of a piece more often than I varied.

Texture. I used diverse playing configurations with Erica. At times I followed her lead, as in joining in with a tremolo that she initiated.

Volume. The level of intensity of my playing was fairly constant in my duets with Erica. The most notable exception was a nonreferential improvisation in which I played the tambourine and tubano along with Erica's doumbek (see Appendix G). In this piece, volume was one of several elements to change frequently and abruptly.

Verbal Meanings. My experience of improvisation with Erica was mostly intrapersonal, although interpersonal features did exist (see Appendix G). Intrapersonal aspects of our music-making included feelings that were conjured within me as I listened to Erica play, played with her, or analyzed the improvisations. These feelings were diverse and included 1) boredom and disappointment when Erica seemed to be "stuck in a rut", 2) pleasure as I noticed her energy increasing and her affect brightening, 3) musical competence as I executed a particularly masterful rhythm, and 4) anxiety and confusion as I listened to Erica's disintegrated beating. I also experienced compassion as I sensed her emotional vulnerability during "Peaceful Dreamy

Love." There were a few improvisations in particular in which I found little meaning.

I often felt as though our co-improvisations lacked musical reciprocity and intimacy. In fact, Erica usually closed her eyes while we improvised, saying it helped her to concentrate. This withdrawal rendered futile my attempts to make an interpersonal connection through eye contact or gesture. Interpersonal relations with Erica through verbal dialogue were equally tenuous, and I often experienced a sense of distance from her that prevented me from sharing my immediate reactions to our improvisations (see Appendix G).

Case II: William

Introduction

William was a 17 year-old Caucasian male with a tall, thin build and red hair. He had light blue eyes that were slightly slanted, a trait he had inherited from his mother, who was of Japanese descent.

William was diagnosed with Major Depressive Disorder. His depression began at age 9. Secondary diagnoses included Attention Deficit Hyperactivity Disorder, Dysthymic Disorder, and Post Traumatic Stress Disorder. He had a chaotic and violent family history and recalls having been sexually abused at age 3 or 4 by a male family member. At the time of this project, William was on several

medications, including Ritalin and Concerta for attentional problems and Effexxor for depression.

According to agency records, William exhibited many pathological symptoms that included difficulty sleeping, dysphoria, dissociation, low frustration tolerance, temper outbursts, emotional lability, and irritability. His mother reported incidences of opposition and defiance in the home. Additionally, both William and his sister regularly claimed to see ghosts named George and John.

Agency goals for William were to increase his motivation to complete tasks, stabilize mood, and decrease his outbursts of anger.

General Response to Improvisation

William presented for three sessions with what seemed to be a lackadaisical attitude. He did not register much emotion on his face while playing or speaking, except for an occasional smile. He yawned frequently, stating that his medication made him sleepy. At times he appeared to be bored, although he denied this when asked.

William's general approach to playing and the resulting musical products seemed haphazard and noncommittal at times. Frequently, he began improvising immediately upon selecting his instrument, sometimes while I was still speaking. As he played, he often slouched in

his chair, yawned, and held his instrument or mallets loosely and without conviction.

Unlike the other study participants (who often had no words to describe their experiences or who gradually constructed their descriptions), William typically had an immediate and definitive response to my questions or comments. He was bright and articulate and never seemed to need time to think about what he was going to say. He tended to be verbally interruptive.

Portrait of William

William and I had three sessions together, each one lasting approximately 40 minutes. In that time, he played a total of 10 improvisations. Of these, 0 were solo nonreferential, 3 were duet nonreferential, 6 were solo referential, and 1 was duet referential (see Table 2). Three of the four categories are thus represented. Units were selected on the basis of their ability to illuminate varied aspects of William's experience.

Complete musical descriptions, narratives on the organization of musical elements, and verbal meanings for William appear in *Appendix H - Analysis of Improvisations: William.* Abbreviated musical and verbal data for William appear in Appendix I.

Table 2
William's Improvisations

	Type	Instrumentarium
#1	Duet Nonreferential	William-cabasa Susan-doumbek
#2	Duet Nonreferential	William-claves Susan-soprano glockenspiel
#3	Solo Referential "My Outspoken Personality"	William-bongos
#4	Solo Referential "A Part of My Personality That I Usually Keep Hidden"	William-agogo bells, rainstick, triangle, jinglestick, bongos
#5	Duet Referential "Blah"	William-alto metallophone Susan-tubano
#6	Solo Referential "Annoyed"	William-alto metallophone
#7	Solo Referential "Sad"	William-rainstick, guiro
#8	Solo Referential "Happy"	William-bongos, metallophone
#9	Solo Referential "My Inside and My Outside"	William-rainstick, ganza
#10	Duet Nonreferential	William-tubano Susan-tambourine

Note. Shading indicates improvisation was included in study analysis.

Rhythmic Elements. William was able to integrate his playing with a pulse and sustain rhythmicity; however, he often chose to play in a disintegrated fashion. He was also capable of imitating and initiating short rhythmic patterns. Salient in William's rhythmic playing was a tendency to repeat specific dotted and syncopated fragments. These short motifs (3 to 4 beats) appeared in both his nonmelodic and melodic improvisations. Although

most of his rhythmic playing was in duple time, William occasionally and abruptly launched into 3/4 and 6/8 meters. He was the only study participant to use these meters significantly.

Tempo was rarely stable. Variability was especially salient in two referential improvisations that had many changes in speed, both gradual and sudden.

Tonal Elements. There was a notable lack of tonal center, melody, and harmony in William's improvisations. Although he played the metallophone for several pieces, he never demonstrated distinct melodic contours or coherent phrases. The only "harmony" occurred as random and fleeting bi-lateral beating on the metallophone.

Timbre. William used a great variety of timbres in his pieces and changed sounds often. Sometimes he selected more than one instrument, as in "A Part of My Personality That I Usually Keep Hidden," a referential improvisation in which William played the agogo bells, rainstick, triangle, jinglestick, and bongos.

Texture. Texture was also highly variable. Even when playing on just one instrument, William was inclined to exhaust its timbral possibilities by changing his playing configurations. For example, in one piece he played the

rainstick by tilting, shaking, and rolling it while simultaneously tapping it against various surfaces.

Volume. William's intensity varied more than any other player's. His use of volume spanned all five variability gradients, from rigid to random. The greatest variability occurred in a piece entitled "Sad" in which William played the guiro with both gradual and abrupt changes ranging from *pianissimo* to *fortissimo.*

Noteworthy was William's unexpected use of volume at the ends of his solo pieces. For instance, in three of his lively and loud pieces on the metallophone, he finished with a descending scale followed by a soft, ascending glissando. And in "William's Outspoken Personality," the energy that he accumulated on the bongos through subdivision, loud tremolos, and syncopated rhythmic figures suddenly dissipated with four soft and idle strikes. In these cases, volume was connected to unresolved tension.

Verbal Meanings. At times William was hyperverbal with distinct scarcity of content in his disclosures as in the following exchanges:

> Susan: Wow, you used a lot of different instruments. Talk about what you did.
> William: Um, I started with one at the start, and then I tried something new. And then I wasn't feeling it, and then I tried something else that was new and I didn't really like it, and then I tried something else that was new and didn't really like it, tried

something else and then I liked it. And then I went back through, the same way; got to do the same thing over and over again. Try something new and if I don't like it, I keep trying until I make myself to like it.

Susan: Can you talk about what about that felt sad or sounded sad?
William: Um, that certain things make me sad sometimes, but just a little bit like this, just a little bit. And then other things make me really sad and sometimes a little bit, and it can go from really not so sad to really sad and be really, really sad, and not so sad...

I noticed that William seemed to contradict himself at times, as in the following examples:

Susan: Are you bored or just tired?
William: Tired. My medication makes me really tired.
Susan: Are you tired more in the mornings?
William: Yeah, because I take it in the mornings.
Susan: Uh-huh. OK. Well maybe we need to do something a little bit more rousing to keep you awake, huh?
William: No, actually I'm really awake.

Susan: And then the big scrapes [on the guiro], they got louder.
William: Let people know, I'm sad, leave me the hell alone.
Susan: That almost sounds angry.
William: No, not angry. I just don't want people messing with me when I'm sad. I like my own personal space...
Susan: ...you used two instruments this time.
William: Yeah, this one [rainstick] because it sounds like somebody's crying. Like tears.
Susan: So when you are sad, are tears a part of how you express that?
William: Sometimes, yeah. Sometimes I just get angry when I'm sad.

In addition to contradicting his own words, William periodically made statements that seemed incongruous with his actions and affect. For example, he claimed that improvising was "fun" and that it helped him feel good; yet there was usually nothing about the manner in which he played nor in his facial expressions to support this assertion.

The analysis of data from session transcripts revealed less than desired about the essence of William's experience in improvisation. However, two aspects did emerge.

During one moment in our work together, I took that opportunity to ask William directly about the meaning of the experience of improvisation. His response indicated that he found meaning in the ambiguous and creative nature of the improvisational process:

> William: You can do many, many different things with it. You can make it loud, you can make it quiet, you can...I don't know how to explain it, but yeah. You can show many different kinds of situations and things with the beats and the music behind it.
> Susan: Uh-huh, different types of situations. Today it was different types of feelings.
> William: Right.
> Susan: So for you, what did this session mean, if anything? Did it have any meaning for you?
> William: Not really. I liked the music, it was fun. I mean, I don't know what the meaning would be for me.
> Susan: Hm-mm.
> William: It lets out my art-, my creativity side.
> Susan: Lets out your creativity?
> William: Yup.

The conversation continued, and William revealed that he had written and published poetry. He stated his preference for poetry over music and said that he was able to express himself much better through writing than improvising because he could use words to describe "situations and real life experiences." He said that with music "you can't reach out and say, 'Here, look at this. This is what I'm saying.'" He believed that music without words did not provide the "full effect" and that even music with words was vague and subject to interpretation:

> William: Even with words, it depends on what you think about it and what you take it as.
> Susan: Hm-mm. Yeah, because as I think about what you played today, there were times when you were really busy, active. And as I listen to that, it could be worry, it could be anxiety, it could have represented excitement, it//
> William: //It could mean anything.
> Susan: //could have represented happiness. I mean, it could mean many, many different things. So it kind of depends on the person who's playing and what their intention is?
> William: It doesn't just depend on that, either. It depends on the person who's listening.
> Susan: Uh-huh. Say more about that. That's curious.
> William: Because it depends on how you take it as. If you're just, like, a regular person and just thinking a lot about love and whatever, then you're going to take every song you hear as about love. Or, if you're a person who's more open-minded and you just think about everything in life, like love, happiness, sex, whatever, I mean, whatever you think about, you know. You open your mind, and you open your heart to it, and you hear many different things in many different songs.

Whenever he was asked to listen to and reflect upon an improvisation, whether referential or nonreferential, William tended to focus on the designative meaning of the specific musical elements employed. These meanings were not consistently applied. For instance, in various pieces his loud playing represented his outgoing and opinionated personality, feelings of anger, or unbridled happiness. Soft playing represented William's states of sadness, aggravation, or withdrawal. To William, quick tempos depicted his hyperactivity.

William made few comments of an interpersonal nature. The statements he made related to feelings of sadness or aggravation that caused him to keep "others" away. He did not verbalize anything directly related to the relationship between us, musical or otherwise.

Portrait of My Experience of Improvisation With William

Abbreviated musical and verbal data pertining to my experience of improvisation with William appear in Appendix J.

Rhythmic Elements. When improvising with William, I created an assortment of rhythmic figures. In two of our duets, these patterns were undifferentiated from the pulse; in the third, I attempted to fit my rhythms with William's expressions and fell away from the pulse when I was unable

to do so. I yielded to William in the establishment of tempo and changes therein.

Tonal Elements. I used a tonal instrument in one duet with William. In this piece, I created a variety of cohesive melodies within a clear tonality.

Timbre. Timbre did not appear as a significant feature of my improvisations with William, but in all co-improvisations I selected an instrument with a timbre that contrasted with his.

Texture. With William, texture appeared minimally in the data related to my organization of the elements, standing in stark contrast to his extensive use of textural variations.

Volume. Like William's, my volume was variable, with both gradual and sudden shifts in intensity.

Verbal Meanings

Data in Appendix J attest to a preponderance of comments related to intrapersonal processes and relationships. Statements reflected my ambivalence toward William's music and improvisational processes.

Comments related to our first duet indicate that I had formed a positive impression of William's abilities to make music. I was pleased that he was able to sustain rhythmic patterns and organize them into meaningful phrases, and I

was impressed with his creative use of the cabasa. I thought that William's solo improvisation, "Sad," appeared to be executed with intent and authenticity. As I listened to three more of William's solo referential pieces, however, my sentiments were less favorable. The rhythmic tension and lackluster endings bothered me. I did not perceive William's playing as attentive or intentional, and the manner in which he played did not seem congruous with my notions of the given referents. During our last duet, I felt frustrated because I had trouble organizing my rhythmic patterns to fit what William was playing.

Remarks of an interpersonal nature were scarce. Outloud, I aknowledged William's use of pulse and tempo to organize our co-improvisation in a meaningful way. I commented on his sad affect during "Sad" with the intent of validating what I perceived as congruent emotional expression. In notes related to my work, I wrote that I heard my rhythmic expressions as an attempt to push William into compliance.

Case III: Hayley

Introduction

Hayley, 14 years old, was one of two children born of a Caucasian mother and a Native American father. She was

tall and well-groomed, with long brown hair and almond-shaped, wide-set brown eyes.

Both Hayley's mother and her biological father (whom her mother never married) were alcoholic. Hayley's stepfather sexually molested her periodically from age 3. At age 7, Hayley began having suicidal ideation related to the abuse. In 7th grade, she began having difficulty in school and ran away from home on three separate occasions. Prompted by knowledge of the abuse, Hayley's mother initiated divorce from the stepfather when Hayley was 12.

Hayley's primary diagnosis was Post Traumatic Stress Disorder. She had low self-esteem and difficulty concentrating. Her secondary diagnosis was Adjustment Disorder With Conduct Disorder, Acute, manifested in her difficulty following rules, lying, verbal acting out, and running away. Finally, Hayley had Major Depressive Disorder, which was most evident in her suicidal thoughts and hypersomnia.

Treatment goals for Hayley were to increase her ability to cope with angry feelings and improve communication with her parents, increase responsible behavior (i.e., accept discipline, use respectful language, and not run away), and increase her ability to process thoughts and feelings related to her sexual abuse.

General Responses

Hayley described herself as shy. In general, she spoke in a quiet voice, responding to many of my questions by shrugging her shoulders and saying "I don't know." When asked how she felt, she typically said, "OK" unless nudged to say more.

Hayley had difficulty making choices, such as which instrument to play or how to begin playing. Despite my reassurances that there were no right or wrong responses in improvisation, Hayley said she was "afraid of making a mistake." She seemed eager to please. Just as she was reserved in her verbal expression, Hayley appeared physically constrained in her playing, especially at the start of the project.

Portrait of Hayley

Hayley and I met for four sessions. Each session lasted approximately 40 minutes. In all, she created 15 improvisations. Of these, 11 were complete data sets (with accompanying transcripts). There were 2 solo nonreferential, 2 duet nonreferential, 4 solo referential, and 1 duet referential (see Table 3). The pieces chosen for analysis represent all four categories and were chosen on the basis of their ability to reveal diverse aspects of Hayley's experience.

Table 3
Hayley's Improvisations

	Type	Instrumentarium
#1	Duet Nonreferential	Hayley-guiro Susan-bongos
#2	Duet Nonreferential	Hayley-doumbek Susan-maracas
#3	Solo Referential "Sadness" (and anger)	Hayley-tubano
#4	Solo Referential "Sadness"	Hayley-tubano
#5	Duet Referential "Conversation With Josh"	Hayley-tubano Susan-doumbek*
#6	Duet Nonreferential (no recording)	
#7	Duet Nonreferential (no recording)	
#8	Solo Nonreferential (no recording)	
#9	Solo Referential "Emotions" (no recording)	
#10	Solo Referential "Mom's Lullaby" (no recording)	
#11	Duet Nonreferential	Hayley-alto metallophone Susan-rainstick*
#12	Duet Nonreferential	Hayley-alto metallophone** Susan-alto metallophone
#13	Solo Nonreferential	Hayley-ganza
#14	Solo Referential "My Inside and My Outside"	Hayley-alto metallophone
#15	Solo Referential "Anxious to See My Dad"	Hayley-alto metallophone

Note. Shading indicates improvisation was included in study analysis.
* Client selected instrument(s) for Therapist
** Therapist selected instrument(s) for Client

Complete musical descriptions, narratives on the organization of musical elements, and verbal meanings for Hayley appear in *Appendix K - Analysis of Improvisations:*

Hayley. Abbreviated musical and verbal data for Hayley appear in Appendix L.

Rhythmic Elements. Hayley's rhythmic integration was inconsistent; her playing was fused at times and overdifferentiated at others. Often there was no discernable pulse in her music, and she resisted my attempts to ground her playing. There was little rhythmic variation in her pieces, and they were typically brief, averaging just over one minute. Her lack of integration created substantial tension.

The tempi of Hayley's pieces were both stable and variable. She appeared to change speeds in order to accommodate the rhythmic disintegration that resulted from sensorimotor difficulties. Hayley tended to slow down when she experienced difficulty conserving a rhythmic figure. She assumed the lead in establishing the pace of one duet improvisation and deferred to my tempi in the rest.

Tonal Elements. Hayley took a particular liking to the alto metallophone, using it in four improvisations. Her melodic constructions were characteristically confined; she used only a few pitches within a narrow range and she used them in a repetitive way. She did not form clear melodic ideas, and she did not organize her playing within a key center. Hayley used no harmony.

Timbre. Initially, Hayley favored the tubano. As the sessions progressed, she explored a slightly wider range of timbres. In all analyzed improvisations, Hayley used a single instrument.

Texture. As with timbre, Hayley's use of textural aspects became more pronounced as the sessions continued. On the metallophone, she expanded her playing configurations from simple strikes to include tremolos and *glissandi*, and she added changes in register to her repertoire.

Volume. Hayley's use of volume was equally stable and variable. She tended to follow my lead, whether increasing or decreasing in intensity. In one particular solo piece performed on the ganza, Hayley used an exceptionally wide dynamic range, from *pianissimo* to *fortissimo*. Changes were mostly gradual.

Verbal Meanings. In the initial session, Hayley expressed feelings of nervousness. She also stated that she was shy, and these two aspects of her demeanor contributed to a paucity of verbal expression. When she did speak, Hayley's verbal expressions usually related to intrapersonal experiences, such as thoughts and feelings she had about the music and the music-making.

During our first session when Hayley was asked to comment on her experiences in improvisation, she said, "It was fun" or "It was different." Later in the session, Hayley became more forthcoming about what she was thinking and feeling. She formed a metaphor, saying, "I guess it'd be like life. Like you start out, and you're kind of curious about everything and then you go through life and then you die." She was describing her own musical process: exploring her chosen instrument (timbre, texture), moving through the piece (rhythm), and finally tapering off (volume) at the end. This reference led to a discussion about the accidental death of Hayley's friend, which had occurred just one day before our session.

For Hayley, improvising often seemed to be a difficult and uncomfortable undertaking. Comments were congruous with this notion; she frequently stated that it felt "weird" and that she was worried about how she was going to sound.

Rather than playing or discussing the feelings she was experiencing in the moment, Hayley tended to create and talk about emotions that she had experienced in other times and places. She spoke in generalities with a flat affect. After one particular piece, she said matter-of-factly, "It got out my anger. It got it out, I guess. Isn't that what

you're supposed to do? Yeah, like with this little music thing?"

Like some of the other study participants, Hayley made connections between her organization of musical elements and specific feeling states, as in the following statements:

> Sadness was more like the softer sound I think, and anger was more like when I hit there [in the middle of the drumhead].
>
> [It was] kind of loud, but kind of soft, kind of like when you're crying...yeah, like if you cry, every now and then you'll get louder and then you'll go a little bit deep...like lower, and then louder again.
>
> Yeah, but I hit it a little harder...'cause it represented the inside...hurt inside.

Hayley had specific associations with specific sounds. For example, she paired the timbre of the metallophone with images of rain and water flowing as she created one solo piece. In another session, the ringing sound of the instrument reminded her of background music for horror movies. Finally, the same sound triggered images of Hayley's mother singing a lullaby.

Hayley made very few comments of an interpersonal nature. After one duet, as we listened to and talked about the music, Hayley claimed responsibility for the ending of the piece, believing she had initiated changes in volume and tempo. The only other comments relating to our

relationship through music were statements about a co-improvisation on the alto metallophone. Hayley felt a connection with me through a shared pulse and chose the piece as a favorite of the session because "we connected at the end." When asked to compare the experience of playing by herself and playing with me on the same instrument, Hayley noted that "there was more sound coming from us...and there was different pitches 'cause we made different sounds with the different mallets" but that the experience did not feel different in any way.

Portrait of My Experience of Improvisation With Hayley

Abbreviated data pertaining to my experience of improvisation with Hayley appear in Appendix M.

Rhythmic Elements. I tended to play in a highly rhythmic way with Hayley, except in our referential piece, "Conversation With Josh." In this piece, my rhythms were chaotic, more like "sound spurts" than developed patterns. I followed Hayley's tempo in one improvisation, slowing my playing along with a *ritardando* she initiated.

Tonal Elements. In our tonal duet, I played in both an overdifferentiated and undifferentiated manner. Tonal expressions were erratic in the beginning of the piece and became increasingly grounded in tonality as the music continued. My melodic configurations were varied.

Timbre. My timbre was stable and fused with Hayley's in our improvisation on the alto metallophone. In other pieces, timbre was both stable and varied. This element did not figure prominantly in my co-improvisation with Hayley.

Texture. Texture was not mentioned once in the account of my organization of the musical elements, indicating that it was not a salient feature.

Volume. The level of my intensity in my improvisations with Hayley changed as much as it stayed the same. In one piece, I acted as leader and Hayley played according to the volume that I established.

Verbal Meanings. Two particular improvisations generated an abundance of intrapersonal and interpersonal meanings for me. The first was a referential improvisation entitled "Conversation With Josh." In response to this piece, I wrote about the excitement I experienced as a result of the dynamic and immediate nature of the music. This was significant in that Hayley's prior improvisations (both solo and duet) had lacked vigor and reciprocity. I liked the sense of uncertainty, of not knowing what either one of us would play next. My comments also indicated that I felt dissatisfied with the abrupt ending, although I did not share that with Hayley directly.

The second piece of particular import was a duet on the alto metallophone. From the beginning, this piece represented my desire for musical intimacy. We shared an instrument at my request, and I took to heart the responsibility inherent in that decision. I felt a sense of duty to provide a safe, holding environment for Hayley's expressions. I wrote that settling into a pulse and shared rhythmic pattern contributed to our connectedness, and that her willingness to join with my pulse, tempo, and meter was a communicative act of significance, given that she had resisted my rhythmic overtures in previous improvisations. I also scribed that in developing an ostinato, I not only provided a holding structure for her, but provided myself a respite during which I could really listen to what was happening. My comments reflected that I was deeply moved by the beauty and tenderness of the ensemble and that this was one of the most meaningful improvisations that I had experienced with her.

Other statements from my work with Hayley related to my perceptions of her creativity, tenacity (length of improvisation), and rhythmicity, each noteworthy because these features were not the norm.

Case IV: Chrissy

Introduction

Chrissy, age 13, was tall and thin with long brown hair. She came from a chaotic family of five children. Her mother, unemployed, had a history of severe drug and alcohol abuse. Her father worked sporadically in construction. Chrissy's parents separated when she was six years old. Shortly after the separation, one of her mother's boyfriends physically assaulted both Chrissy and her younger sister. From age 10 to 12, Chrissy lived with her father; at the time of this project, she was again living with her mother, who allegedly had been drug- and alcohol-free for two years.

Chrissy carried a variety of mental health diagnoses. Her Depressive Disorder was manifested in mood lability and irritability. Her Oppositional Defiant Disorder was evident in her verbal and physical aggression toward others, stealing, tendency to bully, unstable peer relations, and general defiance of authority. Just prior to her admission to IYS, the juvenile court had placed Chrissy in detention due to a school suspension for fighting. She was described by site staff as being manipulative, clingy, demanding, and unruly.

Chrissy also had Attention Deficit Hyperactivity Disorder, which was revealed in her impulsivity, poor grades, and difficulty sleeping. Her medications included Risperdal and Zoloft.

General Responses

In our sessions, Chrissy initially presented herself as childish and dependent. Her voice was high-pitched and whiny, and her verbalizations were simplistic and concrete. Gradually, she revealed problematic aspects of her disposition, in particular, her impatient, angry, and spiteful way of interacting with peers in the program.

Portrait of Chrissy

Chrissy and I met for a total of 5 sessions. Sessions one through four lasted approximately 40 minutes. The final session was 15 minutes long. During our time together, Chrissy played 15 improvisations, including 1 solo nonreferential, 8 duet nonreferential, 4 solo referential, and 2 duet referential (see Table 4). A proportionate sample was chosen for analysis, particularly those pieces in each category that contained varied musical and/or verbal material for comparison with other selections.

Complete musical descriptions, narratives on the organization of musical elements, and verbal meanings for

Table 4
Chrissy's Improvisations

	Type	Instrumentarium
#1	Duet Nonreferential	Chrissy-djembe(mallets) Susan-tambourine
#2	Duet Nonreferential	Chrissy-djembe(mallets) Susan-tambourine
#3	Duet Nonreferential	Chrissy-djembe, tubano, handdrum Susan-tambourine, doumbek, cabasa
#4	Solo Referential "Sad, Depressed, and Guilty"	Chrissy-tubano(mallets), bongos (mallets)
#5	Solo Referential "Anger"	Chrissy-djembe, tubano, doumbek, claves
#6	Solo Referential "Happy"	Chrissy-handdrum, tubano
#7	Duet Nonreferential	Chrissy-doumbek Susan-maracas
#8	Duet Referential "The Tiger Rainforest"	Chrissy-doumbek, handdrum, cymbal, glockenspiel Susan-rainstick*
#9	Duet Nonreferential	Chrissy-talking drum Susan-guiro
#10	Solo Referential "Angry"	Chrissy-djembe, claves, handdrum, doumbek(mallets)
#11	Duet Referential "Angry Conversation"	Chrissy-tubano(mallets) Susan-tambourine
#12	Duet Nonreferential	Chrissy-doumbek Susan-guiro*
#13	Duet Nonreferential	Chrissy-bongos (mallets) Susan-alto metallophone
#14	Duet Nonreferential	Chrissy-tubano(mallets), handdrum(mallets) Susan-tambourine, cabasa, doumbek
#15	Solo Nonreferential	Chrissy-alto metallophone

Note. Shading indicates improvisation was included in study analysis.

* Client selected instrument(s) for Therapist

Chrissy appear in *Appendix N - Analysis of Improvisations: Chrissy.* Abbreviated musical and verbal data for Chrissy appear in Appendix O.

Rhythmic Elements. Chrissy's rhythmic expressions ranged from fused to overdifferentiated. In other words, at times her playing converged with an underlying pulse, and at other times she played in contrast to it. She was capable of forming and sustaining well-developed rhythmic patterns. Chrissy's "signature" rhythm was a syncopated figure in duple meter. She was prone to using this rhythm in both nonmelodic and melodic improvisations and was very aware of its presence.

Interestingly, Chrissy's tempi were at once the most stable between improvisations and the most random within one particular referential improvisation, "Angry Conversation."

Tonal Elements. Only one of Chrissy's improvisations involved the significant use of a melodic instrument, the alto metallophone. In this piece, she played with no tonal center, no cohesive melodic patterns, and no harmony. Pitches were randomly yet evenly placed.

Timbre. At the beginning of the project, Chrissy was quite eager to play the instruments. She found the drums to be highly stimulating and tended to play the tubano most

often with mallets. Over time, her use of instruments grew more varied, and she began selecting multiple instruments for single improvisations, both prior to and during the actual pieces. Chrissy experimented with different sounds on each instrument she selected.

Texture. Texture was both rigid and variable in Chrissy's playing. Particularly in the final sessions, she became more confident using a variety of playing configurations. At one point, she tapped the claves together while sliding one across the head of the drum.

Volume. Chrissy's intensity was rigid or stable in some improvisations and variable in others. She used volume to create cyclic tension in one piece. In another, she assumed leadership on the doumbek. In this same piece, she struck the drum so hard that her hands became numb.

Verbal Meanings. At first, it took a great deal of effort to elicit verbalizations from Chrissy. Her initial comments pointed to her insecurity; once she had what she considered success on the drums, she turned her attention to her enjoyment, saying, "I love this, I don't want to stop," and "It was fun, felt good."

Chrissy made concrete associations with the music we created, stating, "At the beginning, it sounded like a

giant was coming," "This drum sounded like the tiger was coming," and "The cymbal was like the wind."

Although difficult for her to articulate in detail, Chrissy did experience immediate feelings while she played. Some of those stated include happy, excited, scared, and lonely. When asked, she indicated that she never felt sadness when she was playing.

In our final session, Chrissy said, "...I made it loud for anger and stuff, 'cause I have an anger problem, so that's why I played anger a lot." I asked her if when she played anger it was because she was feeling angry in that moment and she said that it was not; rather, her playing was a representation of how her anger feels when she feels it.

Interpersonal meanings revolved around Chrissy's in-the-moment responses to me and my music-making. For example, after attempting to play with me note-for-note, she stated that she was scared and frustrated because I was going too fast and she could not keep up. In another, she expressed that she liked the part in the music "where we came together, kind of made music instead of doing our own thing." Finally, in "Angry Conversation," Chrissy responded to the aspects of our playing that caused her to feel like she was really arguing with another person: our

differential timbres, the back-and-forth, forceful nature of our expressions, and the "interruptions."

When given a choice, Chrissy preferred to play with me, saying she was lonely when playing solo improvisations.

Asked if the sessions had any meaning for her overall, Chrissy replied that they did not.

Portrait of My Experience of Improvisation With Chrissy

Abbreviated data pertaining to my experience of improvisation with Chrissy appear in Apendix P.

Rhythmic Elements. In all but one referential improvisation with Chrissy ("Angry Conversation"), my playing was grounded in a pulse. I formed varied rhythmic figures in duple meter, including syncopated patterns, and imitated many of Chrissy's expressions.

I both led and followed with respect to rhythmic elements; however, I mostly depended on Chrissy to establish initial and evolving tempi. There were a few times when I maintained a steady pulse while Chrissy transitioned from one instrument to another.

Tonal Elements. I played one tonal instrument with Chrissy, the alto metallophone. In this piece, I grounded my melody in D Dorian. Phrasing was complete and symmetrical.

Timbre. As a rule, I played one or two instruments in my co-improvisations with Chrissy. In cases where I played more than one instrument, it was not uncommon for me to select one during the course of the improvisation, in response to an instrument that Chrissy had chosen in the moment. In two instances, she determined my "voice."

Texture. Overall, I tended to incorporate Chrissy's playing configurations into my own improvising. These included single strikes, polyphonic playing with two mallets, shaking, scratching, and tremolos.

Volume. Volume was a significant aspect of my playing with Chrissy. I both maintained and varied volume levels in our co-improvisations, often in response to her changes. In one referential piece, changes were sudden and extensive; here, volume was used along with rhythmic elements to create substantial tension.

Verbal Meanings. Initially, Chrissy was hesitant and lacked confidence. Thus, a good share of my comments were directed at encouraging her to attempt to make music or aknowledging the expressions she had just made. Examples of such statements include, "Yeah, yeah. Don't be shy," "You're doing great, don't quit," and "Whatever comes out is just fine. Just do what feels right."

There were times that I registered surprise at something that Chrissy had done. For example, in one session she was particularly lethargic and was complaining of fatigue, yet she played with significant energy and intention. In another, I was baffled by Chrissy's decision to align with my playing, note-for-note. This was nothing she had ever done before, and it took me by surprise. In another piece, "Sad, Depressed, and Guilty," I was taken aback by both the uncharacteristic brevity of Chrissy's playing and the tenderness she expressed through tempo and volume.

I shared a few comments with Chrissy of an interpersonal nature. The piece, "Angry Conversation" stirred in me a sense of immediacy that I revealed as pleasurable. I also described to her that I could feel a low level of anger as we played, and that my persistent and interruptive playing reflected my stubborn nature. In another improvisation, I told Chrissy that I felt musically interconnected through our shared pulse and rhythmic figures.

Case V: Tanisha

Introduction

(Because of my status as a volunteer at ITU, and in accordance with agency policy, I was not allowed to view

Tanisha's files. The following information was gathered from brief, informal interviews with Tanisha and site staff.)

Tanisha turned 14 years old during the study. She was African-American with light brown skin and a stern face that brightened considerably when she smiled or giggled. Her arms were covered with superficial scars that agency staff assumed had been self-inflicted.

Tanisha never knew her mother or father. From the time she was born until the present, she had been in and out of foster care, group homes, and residential treatment facilities. In all, she had been in 23 different placements. Prior to coming to ITU, Tanisha had been in a foster home for over a year and was close to being adopted. It was said that she sabotaged the adoption process by acting out.

General Responses

Tanisha's response to improvisation could be described as a blend of polite obedience, childlike curiosity, and interpersonal caution. Her affect was mostly flat, yet punctuated with "artificial" smiles during conversation and heartfelt giggles while playing. It appeared as though she laughed both when pleased and when embarrassed following

what she perceived as a "failed" attempt to produce, imitate, or conserve a certain sound.

Overall, Tanisha seemed to be verbally avoidant. I found it difficult to sustain a dialogue with her about her experiences in improvisation. She typically answered questions in one of two ways; either she was terse, or her responses were run-on sentences without much focus. She tended to ask questions about the instruments as a diversion from conversation about her thoughts and feelings. I noticed she frequently dissociated while I was speaking to her and also while she listened to the recorded improvisations.

Portrait of Tanisha

In all, Tanisha and I met three times. She played 2 solo nonreferential, 6 duet nonreferential, 3 solo referential, and 1 duet referential improvisation, for a total of 12 pieces (see Table 5).

Complete musical descriptions, narratives on the organization of musical elements, and verbal meanings for Tanisha appear in *Appendix Q - Analysis of Improvisations: Tanisha*. Abbreviated musical and verbal data for Tanisha appear in Appendix R.

Rhythmic Elements. Tanisha's playing was highly rhythmic. She was able and frequently elected to play with

Table 5
Tanisha's Improvisations

	Type	Instrumentarium
#1	Duet Nonreferential	Tanisha-soprano glockenspiel, rainstick, claves, finger cymbals, crash cymbal, agogo bells, cabasa Susan-bongos, finger cymbals, doumbek, djembe
#2	Duet Nonreferential	Tanisha-ganza Susan-doumbek
#3	Duet Nonreferential	Tanisha-guiro Susan-bongos
#4	Solo Referential "Fear"	Tanisha-soprano glockenspiel
#5	Solo Referential "Angry"	Tanisha-soprano glockenspiel
#6	Solo Referential "Loneliness"	Tanisha-crash cymbal (brushes)
#7	Duet Referential "Angry Conversation"	Tanisha-bongos(mallets) Susan-tubano, cymbal
#8	Duet Nonreferential	Tanisha-triangle Susan-talking drum
#9	Solo Nonreferential	Tanisha-alto metallophone
#10	Duet Nonreferential	Tanisha-claves Susan-rainstick
#11	Duet Nonreferential	Tanisha-talking drum Susan-bongos
#12	Solo Nonreferential	Tanisha-alto metallophone

Note. Shading indicates improvisation was included in study analysis.

a clear, unwavering pulse. Her rhythmic figures were simple but well-formed, and these were repeated both within and between her improvisations. Tanisha tended to imitate my rhythmic patterns as well. She was able to alter the rate of her playing in a fluid manner, and she both initiated tempi and followed my lead.

Tonal Elements. Tanisha used the soprano glockenspiel and the alto metallophone in her improvisations. On the first instrument, her playing was more rhythmic than melodic, as she repeated a dotted rhythm in a random sequence of ascending pitches. On the metallophone, Tanisha formed complete melodic ideas with a variety of tonal patterns. She did not establish a clear tonal center. Tanisha did not create harmony.

Timbre. The instruments held great attraction for Tanisha. She was especially drawn to the crash cymbal and the soprano glockenspiel, which she recalled having played in Kindergarten. In her very first improvisation, Tanisha moved from one instrument to the next, exploring seven different "voices" in a random sequence. As a rule, however, Tanisha played a single instrument in each improvisation. She found numerous ways to produce sound on each one and seemed particularly attentive to changes in timbre. In one of our last improvisations, when Tanisha was feeling depressed, she selected the triangle -- an instrument with limited timbral potential -- and played it with an uncharacteristic lack of expression.

Texture. Tanisha's playing was entirely monophonic. As indicated above, she did vary timbre frequently and did this primarily through altering her playing configurations.

Volume. Tanisha's use of volume was both stable and variable. She tended to be dependent on me to establish levels of intensity. As a rule, she played at *a mezzo-forte* level, saying she did not like to be loud. In one of her solo pieces, a sustained *pianissimo* on the crash cymbal created a high level of tension; she was the only participant to use a subdued volume level in this way.

Verbal Meanings. As noted above, Tanisha tended to avoid dialogue. When she did speak, she did not focus on her internal experiences, but rather talked about what had happened or what she had heard. She seemed resistant to sharing her feelings with me at times. After a series of solo improvisations based on emotional referents, Tanisha stated that it was easier to play feelings than to talk about them.

Tanisha claimed to enjoy improvisation, making statements such as "I like this," and "This was really fun." One one occasion, she described feeling "weird" in response to playing loudly, saying, "I don't really like being loud."

Tanisha made a few comments that reflected her tendency toward self-criticism. It seemed important to her to be able to maintain a steady pulse and conserve rhythmic patterns, especially when she was playing by herself. She

made references to "messing up" and not being able to "keep a rhythm that was more steady." She mentioned that sometimes she played more softly than I did in order to hide her mistakes.

For Tanisha, sounds and the way they were put together frequently reminded her of other things and events. She described one improvisation as "somebody coming from the distance and you can hear them coming closer and closer..." The finger cymbals reminded her of a Barbie doll because they were small, and certain percussive sounds triggered images of "Jungle Book." In one case, Tanisha described our co-improvisation as being like two tribes competing on the drums.

Musical communication was evident and seemed important to Tanisha. The improvisations she enjoyed the most were those in which we shared a pulse, engaged in rhythmic imitation, or playfully attempted to "keep up with" one another. After one duet, Tanisha said she thought the reason the piece sounded "dead" was because "we weren't communicating...like before when we were actually listening to each other."

Portrait of My Experience of Improvisation With Tanisha

Abbreviated musical and verbal data pertining to my experience of improvisation with Tanisha appear in Appendix S.

Rhythmic Elements. My rhythmic integration spanned three gradients with Tanisha -- fused, integrated, and overdifferentiated. Most of the time I played in a grounded fashion, using pulse and simple subdivision. My rhythmic figures were variable and more complex than those in improvisations with other participants. There was a fair amount of motif imitation between Tanisha and I, and most of the time I led the way. I was both a leader and partner in determining the tempi of our playing.

Tonal Elements. I did not play a tonal instrument in the analyzed co-improvisations with Tanisha.

Timbre. Just as I fused rhyhmically with Tanisha, I also fused in timbre during our first improvisation together, synchronizing with her sounds on the finger cymbals. In the remaining pieces, my timbre was distinctly different from hers.

Texture. Texture variability revealed itself in changes in playing configurations. With Tanisha, I was a follower, responding to her configuration changes with identical or similar changes.

Volume. I was clearly the leader in establishing and changing volume levels in our co-improvisations. I tended to use less of a dynamic range with Tanisha than with other participants.

Verbal Meanings. Comments of an intrapersonal nature reflected less of a focus on my own reactions and feelings, and more of a focus on Tanisha's musical expressions. I noted when she appeared to be enjoying an improvisation or a particular instrument, I commented on unusual aspects of her playing (such as when she organized volume in an atypical way), and I attended to her apparent motivation or intentionality.

I perceived Tanisha as emotionally constricted, and I desired to help her relax and experience the freedom of true self-expression through music. Many of my comments to her reflected this desire to empower and reassure her that there were no expectations to "perform":

> You can choose anything you like. I want you to know that it's OK for you to play these instruments all different kinds of ways. There's not one correct way.
>
> It doesn't have to be like any beat you've ever heard before; you can just do your own thing.
>
> Music can be about self-expression, and sometimes you need to have a lot of different sounds to express yourself.

Other interpersonal aspects of my sessions related to my delight at having made a significant connection with Tanisha through our music-making. There were times that our respective playing somehow interlocked, and these moments were particularly meaningful to me when Tanisha recognized and valued them as well. Also meaningful were moments of playfulness, when the music felt like a game of give-and-take and the spontaneity brought us both to heartfelt laughter.

Case VI: Ralph

Introduction

(Because of my status as a volunteer at ITU, and in accordance with agency policy, I was not allowed to view Ralph's files. The following information was gathered from brief, informal interviews with Ralph and site staff.)

Ralph was a stocky, dark-haired 12 year-old Caucasian male. He had been a resident of the ITU for approximately four months. Prior to that, he had lived with his grandmother and grandfather about 50 miles away. Ralph reported that his mother was seriously ill and had been hospitalized for some time. It was unclear whether the illness was physical or psychiatric in nature.

Site staff indicated that Ralph had slight perceptual and cognitive delays and that he was immature for his age.

No diagnosis was revealed, although staff stated that he frequently had temper tantrums during which he yelled, kicked, and threatened others. It was presumed but unconfirmed that Ralph was taking medication to control his outbursts and other pathological symptoms.

General Responses

Ralph approached all sessions with eager readiness. He explored the instruments willingly and thoroughly. I was surprised that he was able to find unique ways of playing that none of the other participants had considered.

Like Chrissy and Tanisha, Ralph made periodic self-degrading comments during initial sessions, such as "I can't do it" and "I can't make that good beat." These statements may have reflected insecurity about his prowess in a new situation. They may also have been indicative of a poor self-image across contexts. In any event, Ralph did not give up in spite of his poor opinion of his own playing, and by our last session, all self-critical comments had ceased.

In general, Ralph initiated very little conversation about the music-making, and his responses to my probes were brief. It was difficult to discern, even at the end of the project, if this paucity of verbal expression was related to Ralph's wariness of a relationship with me, his reported

cognitive delays and resulting concretization of experience, or a combination of these or other factors.

Portrait of Ralph

Ralph met with me three times and created 10 improvisations (see Table 6). Four pieces from Session 3 could not be audio-recorded because there was a nonparticipating adolescent in the room at the time the session occurred. The six remaining improvisations were analyzed. These included 3 solo nonreferential, 3 duet nonreferential, and 1 solo referential pieces.

Complete musical descriptions, narratives on the organization of musical elements, and verbal meanings for Ralph appear in *Appendix T - Analysis of Improvisations: Ralph.* Abbreviated musical and verbal data appear in Appendix U.

Rhythmic Elements. Ralph was able to keep a steady beat on the instruments, but sometimes he elected not to do so. His playing spanned four gradients on the integration profile: fused, integrated, differentiated, and overdifferentiated. Ralph experimented with a variety of rhythmic motifs, including simple subdivisions and more complex syncopated patterns. He also used nonrhythmic

Table 6
Ralph's Improvisations

	Type	Instrumentarium
#1	Duet Nonreferential	Ralph-tubano (mallets), cymbal Susan-djembe
#2	Duet Nonreferential	Ralph-agogo bells, glockenspiel, cymbal Susan-cabasa, tubano
#3	Solo Nonreferential	Ralph-guiro
#4	Duet Nonreferential	Ralph-bongos, tubano, cymbal Susan-doumbek, glockenspiel*
#5	Solo Nonreferential	Ralph-bongos, tubano, claves, cymbal
#6	Solo Nonreferential	Ralph-cymbal, xylophone
#7	Solo Referential "Sadness"	Ralph-xylophone, rainstick, maraca, cymbal
#8	Duet Nonreferential	Ralph-tubano Susan-maracas
#9	Duet Referential "The Hospital"	Ralph-tubano, bongos, cabasa, cymbal Susan-glockenspiel
#10	Solo Nonreferential	Ralph-tambourine (mallets)

Note. Shading indicates improvisation was included in study analysis.

* Client selected instrument(s) for Therapist

"sound forms" in his improvisations.

Ralph's tempi were more stable in initial improvisations. In later works, he employed more variety through *ritardandi* and accelerating tremelos that served to create cyclic tension.

Tonal Elements. Ralph's use of the glockenspiel and metallophone were rhythmic in nature. He played each of

them predominantly in a scalar fashion, up and down, with no distinct melody and no particular tonal center.

Timbre. Ralph organized his use of timbre in varied ways. He enjoyed creating multiple sounds on each instrument, and he experimented with unusual combinations of sound, such as striking the finger cymbals lightly on the crash cymbal to combine the timbres, and using the butt end of the mallets to strike the metallophone. His favorite instrument was the crash cymbal on a stand, which he used in all but one of the analyzed improvisations. He used this instrument in a very meticulous fashion, typically striking it once at the end of a drum roll to signal the finale of a piece or to demarcate sections within a piece. In solo improvisations, this was one way he created a meaningful form for his music. In co-improvisations, he used it in the same manner and, as such, it became a means of communicating with me about his intentions.

Texture. As with timbre, Ralph's textures were highly variable. More than any other participant, Ralph played polyphonically, creating up to three layers of sound at any given time. It became a self-imposed challenge for him to figure out ways to play more than one instrument in a meaningful and coordinated fashion.

Volume. Volume was a significant feature of Ralph's improvisations. He used changes in intensity to create and release tension. More than the other participants, Ralph tended to pair dynamic changes with modifications in other elements, such as playing configuration (launching into a tremolo) and tempo (initiating an *accelerando*).

Verbal Meanings. Ralph thought that improvisation was "fun and cool." He repeatedly used these words to describe his music-making experiences and his creations. When pressed to go into more detail, Ralph would frequently provide an account of how the music resembled or referred to something else. For example, his rhythmic patterns reminded him of rap music, the gong of China and Chinese movies, and the loud and soft playing of his mother and the ways in which they communicated.

In one particular improvisation, Ralph talked about feeling as though he "messed up" repeatedly. He told me he was trying to play the same beat throughout the improvisation and each time his rhythm changed he believed it was a mistake. The only part that felt right to him was the ending, which, like so many pieces before it, consisted of a tremolo leading to a single *fortissimo* cymbal crash.

Ralph commented that he took his anger out on the instruments rather than taking it out on himself. This was

signficant, in that he had a history of banging walls and engaging in other self-injurious behaviors when he felt frustration or rage.

Ralph initiated no statements related to the interpersonal aspects of improvisation. When asked once if he was aware of my music during co-improvisations, he indicated that he was wrapped up in his own music. On another occasion, while listening to an audiorecording of a duet, Ralph was asked to identify moments of intermusical connection. He raised his hand frequently when we shared a common pulse or interwove our rhythmic figures.

Portrait of My Experience of Improvisation With Ralph

Abbreviated data pertaining to my experience of improvisation with Ralph appear in Appendix V.

Rhythmic Elements. My tendency with Ralph was to play well-formed rhythmic phrases with a steady pulse. My rhythmic figures were quite diverse. In most cases, I assumed the role of follower, allowing Ralph to determine rhythmic aspects of our improvistions. He often began each piece by counting "1-2-3," which set the initial tempo. I imitated his motifs in all but one duet.

Tonal Elements. I played the glockenspiel in one improvisation; Ralph chose this instrument for me. My

melodies were formed of repeated notes and short scalar passages in Phrygian mode. Phrases were symmetrical.

Timbre. Timbre did not appear to be a significant feature of my co-improvisations with Ralph.

Texture. Like timbre, texture did not figure predominantly in my duets with Ralph. I both deferred to his changes in playing configuration (following his tremolos) and led him into changes (initiated a tremolo).

Volume. I tended to yield to Ralph's volume, except in one improvisation in which I was attempting to catch his attention. In this particular case, my intensity varied abruptly.

Verbal Meanings. As I listened to Ralph's solo pieces, I found myself feeling pleased and impressed. He was able to play in an organized and expressive fashion, and he was fairly confident in spite of his verbalized self-doubts. I was particularly struck with the intentionality with with Ralph manipulated the musical elements to produce a desired result.

In general, I did not feel connected to Ralph through our music-making in the same way I experienced musical inter-relatedness with the other participants. Ralph was very focussed on sounding the instruments and in forming his own creations, and I wrote that he seemed oblivious to

me. As a result, I often felt like an observer rather than a participant, even during our duets. When this sense of estrangement occurred, I looked for ways to re-connect with Ralph, either by synchronizing with some aspect of his playing or by introducing a sudden change that captured his attention.

CHAPTER FIVE

DISCUSSION

Introduction

This chapter serves as a synthesis of the results presented in Chapter Four. The information that follows is divided into two sections. The first section relates to how the players organized the musical elements in service of meaningfulness, both intramusically and intermusically. In this section, I summarize, compare, and contrast findings related to how the participants went about employing rhythmic (pulse, tempo, meter, subdivision, rhythmic pattern and phrasing), tonal (modality, tonality, melody, and harmony), and sound (timbre, texture, volume) elements into meaningful musical wholes in solo and duet improvisations.

The second section of this chapter is organized according to intrapersonal and interpersonal meanings explicated by analysis of the textual data. In each of the two sections, I present findings for the participant data first, followed by findings related to my own experiences.

Lastly, I make comparisons between the participants' and my experiences.

Organization of Musical Elements

Intramusical and Intermusical Findings: Participants

The Participants Were Inclined Toward Rhythmicity. Table 7 presents findings for the use of rhythm for all participants. Overall, among these adolescents, rhythmic playing appeared to be preferred over nonrhythmic playing. All individuals made a concerted attempt to align their music with a consistent pulse at some point in nearly every improvisation, whether solo or duet. For most participants, this inclination appeared at the start of each piece and recurred throughout.

Every teen was able to create music with a steady beat, but only half were able to sustain a pulse for a 2- to 3-minute improvisation on their own; all participants "fell away" unintentionally at some point during their playing. The tendency to lose a pulse was reduced in duet improvisations. In general, rhythmic integration occurred just slightly more than rhythmic disintegration, the profile gradients ranging from fused to overdifferentiated across cases.

Rhythmicity Was Hampered By Various Factors. For some participants, inclination toward rhythmicity was hampered by sensorimotor challenges. In other words, the adolescent's desire to play in an even fashion was somewhat

Table 7
Meaningfulness Through Rhythm: Participants (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
ERICA	Fused (1) Integrated (1) Differentiated (7)	Stable (3) Variable (1)	Tense (2)	Follower (2) Leader (1)
WILLIAM	Fused (1) Integrated (1) Differentiated (2) Overdifferentiated (4)	Stable (4) Variable (1)	Tense (2)	Follower (2) Leader (1) Resistive (1)
HAYLEY	Fused (2) Integrated (1) Differentiated (1) Overdifferentiated (2)	Rigid (2) Stable (2)		Follower (1) Leader (1) Resistive (2)
CHRISSY	Fused (1) Differentiated (1) Overdifferentiated (2)	Stable (1) Variable (1) Random (1)	Calm (1)	Dependent (1) Leader (1)
TANISHA	Fused (2) Integrated (2) Differentiated (1) Overdifferentiated (1)	Stable (3)	Tense (1)	Dependent (1) Partner (1)
RALPH	Fused (2) Integrated (1) Differentiated (3) Overdifferentiated (1)	Variable (1)		

limited by his or her ability to sustain control over the physical production of sound. On the drums, some players played more rhythmically when using mallets; others played more rhythmically when using their hands. Certain individuals had difficulty manipulating certain instruments due to the fact that each hand had a different function to perform, as with the cabasa, claves, and talking drum, for example.

Two individuals mentioned that their lack of rhythmicity was related to their present psychological functioning. Fatigue, confusion, and depression were among the feeling states mentioned as having influenced these players' ability to "find a beat." For these individuals, an awareness of the arrhythmic nature of their playing was a source of discouragement or frustration. During retrospective listening, these players tended to evaluate their playing in a negative way.

"Signature" Rhythms Were Common. Five of the six participants had "signature" rhythms that they employed consistently, both within singular and across all improvisations. These rhythms appeared in solo and duet as well as referential and nonreferential improvisations. It was not uncommon to find these rhythmic figures expressed on the melodic instruments as well. It is uncertain to what extent the participants were aware of this tendency to repeat rhythmic motifs as they constructed music. At least one player was aware that a syncopated pattern permeated her improvisations; she commented more than once on how difficult it was to avoid this rhythm in spite of her desire to play something else.

The Use of Tempo Was Varied. Tempo varied across all cases. Here, as with rhythmicity, certain participants

appeared to modify tempo more in response to their lack of control over the sensorimotor aspects of sound production than their activated desire to change the rate of their playing. These tempo changes were subtle or fleeting.

At other times, individuals freely and deliberately used a wide range of tempi, and this occurred most often in solo and referential improvisations. Across participants, variability of tempo ranged from rigid to random. Findings for tempo appear in Table 8.

Rhythmic Elements Provided for Intermusical Connections. Intermusical connections were established by all but one participant through the organization and manipulation of rhythmic elements. Specifically, links were forged during co-improvisation through shared pulse, tempo, meter, rhythmic figure (synchronously and imitatively), and, in a few cases, phrasing. As reflected in the autonomy column of Table 7, the adolescents assumed multiple roles in these intermusical relationships. Three individuals were both followers and leaders, and two of these were also resistive. Two were dependent on me to establish rhythmic figures, and one of the participants was a partner in the process.

The Participants Were Limited in Their Tonal Expressions. These participants' ability to use tonal

Table 8
Meaningfulness Through Tempo: Participants (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
ERICA		Stable (2) Variable (3)		
WILLIAM		Stable (1) Variable (2) Contrasting (1)	Tense (1)	Leader (2)
HAYLEY		Stable (1) Variable (2)		Leader (1)
CHRISSY		Stable (2) Variable (2) Random (2)		Leader (1)
TANISHA		Variable (1)		Dependent (1) Partner (1) Leader (1)
RALPH		Stable (1) Variable (2)	Cyclic (1)	

elements in a meaningful manner appeared to be restricted. Although a fairly equal number of tonal and rhythmic improvisations were included in the analyses, each adolescent played fewer tonal than rhythmic pieces (see Tables 1-6). Only one participant elected to use the chromatic xylophone; the others opted to play instruments whose scales were diatonic.

Only one of the participants established a clear tonality in her improvisations, as can be seen in Table 9. If players did gravitate toward any pitch, it was usually the lowest bar on the instrument that they were using at the time. Players emphasized a given note over another by frequency of use only. They did not use intervallic

Table 9
Meaningfulness Through Melody: Participants (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
ERICA	Differentiated (2) Overdifferentiated (1)	Stable (2)		
WILLIAM	Overdifferentiated (1)	Stable (1)		
HAYLEY	Differentiated (1)	Variable (1)		
CHRISSY	Overdifferentiated (1)		Hypotense (1)	
TANISHA	Fused (1) Integrated (1)	Variable (1)		
RALPH	Overdifferentiated (1)			

relationships such as leading tones or V-I progressions to create a tonal center.

The above participant was the only player to organize her pitches into a cohesive melody, and she did so only briefly. Most of the adolescents' improvisations were characterized by one of three types of tonal constructions: 1) motoric patterns that incorporated random pitches; 2) repetitive fragments of a narrow range (2-3 pitches), and; 3) ascending and descending scalar passages.

In one duet improvisation, a participant appeared to imitate the tonal structures I initiated, but this intermusical connection was so vague and fleeting, it was not significant enough to include in the autonomy column of Table 9.

Surprisingly, none of the adolescents used harmony. Only one individual played polyphonically, and he did so in a random fashion for less than 10 seconds.

Timbral and Textural Variability Was Notable. As shown in Tables 10 and 11, timbre and texture were used significantly and were the most frequently varied elements. This may be because these elements were easier than others for a novice player to manipulate through choice of instruments and playing configurations.

All players used more than one timbre on a single instrument, and all but one tended to use multiple instruments for their improvisations. Some participants stuck to one or two "voices" in their initial improvisations, then used timbre more intentionally and fully in subsequent pieces.

Half of the participants created significant tension with frequent changes of timbre and the use of harsh sounds or combinations of sounds. In five duets, three individuals helped to define my timbre by selecting instrument(s) for me.

Multiple textures were employed by each participant as well. The most commonly employed textural feature was playing configuration, which was frequently varied by most

Table 10
Meaningfulness Through Timbre: Participants (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
ERICA	Fused (1) Differentiated (1)	Stable (1)		
WILLIAM		Variable (3)		
HAYLEY	Fused (1)	Stable (2) Variable (1)		
CHRISSY		Rigid (1) Stable (1) Variable (2)	Tense (1)	Leader (1)
TANISHA		Rigid (1) Stable (1) Variable (3)	Tense (1)	
RALPH		Variable (4)		Leader (1)

Table 11
Meaningfulness Through Texture: Participants (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
ERICA		Stable (2) Variable (1)		Leader (2)
WILLIAM		Variable (4)		Leader (1)
HAYLEY		Variable (3)		
CHRISSY		Rigid (1) Variable (1)	Cyclic (1)	Dependent (1) Leader (1)
TANISHA		Stable (1) Variable (3)		
RALPH		Variable (3)		Follower (1) Leader (1)

participants (see Table 11). Unconventional textural combinations appeared in the improvisations of two particular individuals. These included tapping the claves while sliding them across the head of a drum, scraping the finger cymbals across the surface of the crash cymbal, and striking the rainstick with a mallet while simultaneously

tapping it on the floor. Textural diversity was a particular hallmark of this group.

Intermusical connections were made through the use of texture (playing configuration). Four of the participants led me in and out of tremolo patterns. One participant was completely dependent as she attempted to synchronize with both my rhythmic figures and playing configurations.

Register was not used significantly, except by one individual who played identical pitch sequences in low and high registers of the metallophone to reflect polarized features of a given referent.

Volume Was Organized Differentially in Nonreferential and Referential Improvisations. Intensity was fairly constant at a *mezzo-forte* or *forte* level across participants for nonreferential improvisations. However, it seems noteworthy that although generally unwavering in their volume, every adolescent created at least one improvisation in which there were intentional and extreme changes in intensity, as reflected by data in the variability column in Table 12. All of the participants thus demonstrated that they were capable of initiating intentional dynamic changes. This feature appeared most often in referential improvisations and was exclusive to

Table 12
Meaningfulness Through Volume: Participants (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
ERICA		Stable (5) Variable (3)		Leader (2)
WILLIAM		Rigid (1) Stable (1) Variable (2) Contrasting (1) Random (1)	Tense (1)	Leader (1) Resistive (1)
HAYLEY	Fused (1)	Stable (2) Variable (2)	Tense (1)	Follower (3)
CHRISSY		Rigid (3) Stable (3) Variable (2)	Cyclic (1)	Leader (1)
TANISHA		Stable (1) Variable (1)	Tense (1)	Dependent (1) Follower (1)
RALPH		Stable (3) Variable (2)	Cyclic (1) Tense (1)	

solo playing. In these pieces, volume appeared to be used by the participants primarily to create and resolve tension.

Intramusical and Intermusical Findings: Therapist

I Was Inclined Toward Rhythmicity. Data related to my use of rhythmic elements appear in Table 13. While my music ranged across all five gradients of integration throughout the study -- from undifferentiated to overdifferentiated - it was typically integrated. I tended to provide a rhythmic ground more often than not, playing with a clear meter defined primarily by accents. I used a wide variety of rhythmic patterns with all players, including syncopated figures. However, when rhythmic disintegration was

Table 13
Meaningfulness Through Rhythm: Therapist (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
With ERICA	Fused (1) Integrated (2)	Variable (1)		Follower (2) Leader (1)
With WILLIAM	Undifferentiated (1) Differentiated (1)	Variable (2)		Follower (1)
With HAYLEY	Integrated (2) Overdifferentiated (1)	Variable (2)		Follower (2) Leader (1)
With CHRISSY	Integrated (2) Overdifferentiated (1)	Variable (1)		Dependent (1) Follower (2) Leader (1)
With TANISHA	Fused (3) Integrated (1) Differentiated (1)	Variable (2)		Leader (2) Resistive (1)
With RALPH	Fused (1)	Variable (1)		Dependent (1) Follower (1)

imminent or actual, either in the participants' or my own playing, I typically returned to pulse and simple subdivisions. At times, I "bent" the pulse to accommodate the participants' uneven playing.

I Used Tempo to Establish Musical Relationships. My use of tempo often related to my desire to form musical relationships with the participants. Typically, the adolescents began the improvisations and thus established initial tempi. I accepted their pace and more often followed them rather than leading or resisting their fluctuations (see Table 14). In this way, I was attempting to communicate that I heard and accepted their offerings.

Table 14
Meaningfulness Through Tempo: Therapist (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
With ERICA		Stable (1)		Follower (1)
With WILLIAM				Follower (2)
With HAYLEY				Follower (1)
With CHRISSY		Random (1)		Dependent (2) Follower (1) Leader (1)
With TANISHA				Partner (1) Leader (1)
With RALPH				Follower (2) Leader (1)

I Was Free Yet Organized in My Tonal Expressions. I played a melodic instrument in four of the improvisations that were analyzed. Typically, my playing was undifferentiated from a tonality (see Table 15), and my melodies were complete and coherent musical ideas. I used a variety of straight and syncopated melodic patterns in both duple and triple meters, and I organized these into symmetrical phrases, as a rule.

In one duet, I built an ostinato on the interval of a fifth, but I did not use harmony in any other significant way.

I Used Timbre and Texture Less Autonomously Than Other Elements. As indicated in Table 16, I used timbre both as a stable and variable feature of co-improvisation. On

Table 15
Meaningfulness Through Melody: Therapist (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
With ERICA				
With WILLIAM	Undifferentiated (1)	Variable (1)		
With HAYLEY	Undifferentiated (1) Overdifferentiated (1)	Variable (1)		
With CHRISSY	Undifferentiated (1)			
With TANISHA				
With RALPH	Fused (1)			

Table 16
Meaningfulness Through Timbre: Therapist (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
With ERICA	Fused (1)			
With WILLIAM				
With HAYLEY	Fused (1)	Stable (1) Variable (1)		
With CHRISSY		Variable (1)		Dependent (2)
With TANISHA	Fused (1) Differentiated (1)			
With RALPH				

three occasions, my timbre was fused with the participant's. In five of the total improvisations, three

individuals chose my instrument(s) for me, and thus defined parameters for my use of timbre.

In duet improvisations, I tended to match the playing configurations of the participants, as indicated in Table 17. In particular, I often followed their lead in moving in and out of tremolo patterns.

I Used Volume to Establish Musical Relationships. As shown in Table 18, volume variability and autonomy were salient in my duets with five of the six adolescents. My playing fell within three variability gradients: rigid, stable, and variable. I assumed either a dominant or accommodating role in my use of volume, never both with any individual. This may have been because each adolescent tended to either lead or follow with respect to volume, and I assumed the complementary role. In any event, I organized my playing intensity to make a clear connection with the adolescents and empower them, either by following their lead or by leading them into more engaged and assertive playing.

Musical Reciprocity Contributed to Meaningfulness. In most cases, intermusical connections with the participants were weak or short-lived. There was, however, one individual with whom I felt a strong and fairly consistent

intermusical relationship throughout the study. We frequently shared pulse and tempo, we synchronized with and

Table 17
Meaningfulness Through Texture: Therapist (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
With ERICA	Fused (1)	Variable (1)		Follower (1)
With WILLIAM		Variable (1)		Follower (1)
With HAYLEY				
With CHRISSY				Follower (2)
With TANISHA				Follower (1)
With RALPH				Dependent (1) Leader (1)

Table 18
Meaningfulness Through Volume: Therapist (Incidence)

PARTICIPANT	Integration	Variability	Tension	Autonomy
With ERICA	Integrated (1)	Stable (1) Variable (1)		Follower (1)
With WILLIAM		Variable (2)		
With HAYLEY		Stable (1) Variable (1)		Leader (1)
With CHRISSY		Stable (1) Variable (2)		Dependent (1) Follower (1)
With TANISHA		Rigid (1)		Leader (3)
With RALPH		Variable (1)		Dependent (1) Follower (2) Leader (1)

imitated each other's rhythmic figures (which were varied and complex), and we moved freely in and out of dynamic,

timbral, and textural changes. We took turns leading and following in our organization of many of the musical elements. The fluidity and reciprocity of our playing contributed to its meaningfulness for me.

Verbal Meanings

Intrapersonal and Interpersonal Findings: Participants

Overall, it appears as though the experience of music improvisation for these particular adolescents was highly intrapersonal in nature. Analysis of comments made about the overall experience of improvisation as well as about specific pieces revealed that there were several features common to multiple cases. These characteristics are outlined in what follows, with supporting examples from raw data appearing in session transcripts, and Appendices E, F, H, I, K, L, N, O, Q, R, T, and U.

Improvisation Was Enjoyable. At some point during the project (usually in the initial stages), all participants spoke of their enjoyment of the experience of improvisation:

> Erica: I said this is fun.
> William: I liked it. That was fun.
> Hayley: It was fun. It was good because it was fun.
> Chrissy: I love this. I don't want to stop.
> Tanisha: This was really fun.
> Ralph: I like to make music...[it feels] fun and cool.

The connection between pleasure and meaningfulness was not specifically explored within this inquiry. However, the fact that music-making was attractive to the participants contributed to their immediate and sustained engagement with the process of improvising, a necessary condition of meaningfulness.

Improvisation Involved Specific Preferences. Related to enjoyment was the issue of personal preference. Preferences figured into the improvisational experience for all participants. Likes and dislikes were expressed through choices made and dialogue about the improvisations:

> Erica: I don't like that [deep sound] too much. I don't know, I just don't like it.
> William: I like this one. I want to try that [cabasa].
> Hayley: I liked that improvisation and I know why, 'cause I like the rain...and I liked that one too 'cause we connected at the end.
> Chrissy: I liked where we came together, kind of made, like, music instead of doing our own thing.
> Tanisha: I love the sound of the rainstick.
> Ralph: I like that cymbal.

Improvisation Challenged Perceptions of Musical Competence. At the same time that it was enjoyable, improvisation also challenged the adolescents' perceptions of competence. Many of the youth made self-disparaging remarks or comments that indicated self-doubt. They questioned their ability to play a certain instrument, a certain rhythm, and so forth:

Erica: I'm not very good at it. I didn't get it right, like what I wanted to play or how I wanted to play it.
William: I didn't know how to, what to play or anything.
Hayley: I guess I'm not giving myself credit.
Chrissy: I can't do this. This sounds awful.
Tanisha: I kept messing up on being able to keep a beat that was more steady.
Ralph: I kind of messed up, though. I got the beat and then I, like, missed some notes.

All but one of the players stopped at least once during an improvisation due to self-doubt that they articulated. All of these individuals continued with verbal encouragement, however. Fortunately, moments of despair were often balanced by moments of triumph, in which the participants felt good about what they had played.

Improvisation was an Effective Means of Self-Expression. All of the teens communicated their belief that improvising aided them in the expression of their emotions, whether immediate feeling states evoked by the music itself or contrived expressions of feeling states that had been experienced in another time and place. In some cases, this musical improvisation was preferred to other modes of expression:

Erica: I really got a lot of feeling out.
William: I'm feeling annoyed so I just made annoyed sounds.
Hayley: It got out my anger.
Chrissy: You can really play anger on that [doumbek]
Tanisha: It's easier to play than to talk.

Ralph: I finally had to get my anger out with something, so, instead of hitting the wall and making noise, I could make noise with that.

Improvisation Allowed for the Expression of Simultaneous Feelings. There were some cases in which the adolescents described what they played or heard as a reflection of simultaneous feelings, as in the following examples in which anger and sadness were paired:

Erica: There was a little bit of confusion and a little bit of anger that I...let out of it. [I hear] a little bit of anger and sadness, yeah, some sadness too.
Hayley: I think it represented anger too...anger and sadness.
Ralph: When you feel sad, like, you want to bash somebody...yeah, the xylophone and the rainstick [represented sadness]...[for anger] I hit the cymbal.

Improvisation Was Energizing and Motivating. Many participants thought that music improvisation served to energize and motivate them when they were in need of physical or psychological activation:

Erica: I want to play something energizing.
William: It feels good to play it, it just gives life a rhythm. Gives me a rhythm to keep going to.
Hayley: I'm waking up just a little bit.
Chrissy: I just want to keep going and going and going, it's so energizing!
Tanisha: I liked the thing at the end when I was trying to keep up with you and you kept going faster and faster.

Improvisation Involved Novelty, Which Was Valued. There were aspects of novelty and freshness that were valued by the participants:

Erica: That's awesome! I've never seen one of these before.
William: I marked my own beat!
Hayley: That was different. Uh, a good different.
Chrissy: It felt good because I was doing different beats and different instruments instead of always doing like I usually do.
Tanisha: In here, you go through the same routine every single day, and with these [instruments] you get to try something new.

The importance of novelty -- again, in eliciting and sustaining interest and engagement in the improvisational process -- was further reinforced by comments of one individual who said that she wanted to stop coming to the sessions because she had grown bored with the instruments available to her.

Specific Elements Represented Specific Feeling States. Most individuals articulated a perceived connection between feeling states in both referential and nonreferential improvisations and specific musical elements employed. Volume and tempo were most often mentioned as being related to emotional aspects of the player:

Erica: [Listens to *accelerando*] Here my heart's getting faster. Now it's like paranoia. I can't get rid of the fear.
William: If I'm thinking about something happy, then I play loud. If I'm thinking about something that aggravates me or that I'm sad about, I play quiet.
Hayley: Sadness was more like the softer sound, I think, and anger was more like when I hit [the middle of the drum]...it got louder.
Chrissy: 'Cause angry is [hits drum at *fortissimo* level] louder, and happy is like [plays rhythm at

mezzo-forte] smoother. [Guilty] is kind of like, real quiet.
Tanisha: Usually when I'm angry I'm not too loud, I'm like, whatever. I just keep to myself.
Ralph: That's the end of my sadness. It was quiet.

Obviously, aspects of loud, soft, fast, and slow held unique and, at times, multiple meanings for each individual.

Improvisation Evoked Associations. Concrete associations with the music were prevalent among the adolescents. At times, certain timbres triggered specific images. The timbre of the rainstick was associated with rainstorms, sadness, and crying. The drums reminded two participants of tribes in a jungle and one of thunder. Drums also evoked the image of someone or something coming closer and created a feeling of anticipation and excitement. The crash cymbal conjured up images of oriental gongs and Jackie Chan movies, while the glockenspiel caused one participant to reflect on a lullaby her mother used to sing to her and another to think of wind chimes.

Meanings Were Predominantly Intrapersonal. The participants made far fewer comments of an interpersonal nature than those relating to intrapersonal experiences. It could be that the adolescents simply did not perceive the experience of improvisation as meaningful on an

interpersonal level. It is also possible that the interpersonal meanings generated through co-improvisation were not seen as significant enough to be recognized by the participants.

Additionally, some of the adolescents may have perceived the process as interpersonally meaningful but were unable or unwilling to talk about their experiences in interpersonal terms. In some cases, the adolescents' overall difficulty expressing their innermost thoughts and feelings may have come into play. In other cases, the participants may have been resistant to talking about connections made through musical co-improvisation because of a lack of trust in me or comfort in our relationship. The brevity of our relationship and the fact that I may have been perceived as wielding power as an authority figure could have had an impact here.

Developmental readiness may have been an influential factor as well, in that some of the adolescents were so focussed on their own musical and personal experiences at times that they could not be attentive to the intermusical or interpersonal aspects of improvisation.

It seems that there are numerous factors that may have contributed to the sparseness of data related to the

participants' interpersonal meanings. Comments that did appear seemed to be of two types.

The Adolescents Revealed Feelings of Inadequacy. As stated above, improvisation exposed the participants' perceptions of musical inadequacy. As they aknowledged their feelings, it became obvious that sometimes this aspect of their experience was not only intrapersonal -- having to do with the relationship between their music and how they perceived or felt about themselves -- but interpersonal as well -- having to do with the relationship between their music and how they perceived or felt about me. For example, one player repeatedly reminded me that the experience of improvisation was new to her and that she was not sure how to proceed. When she made what she thought was a "mistake," she typically stopped playing and commented that she was just getting used to the instrument, the situation, and so forth. In essence, she was expressing her embarrassment and a need for my acceptance and reassurance in order to continue. It is likely that my presence affected the way she felt about the experience of making "mistakes," and that she would not have felt embarrassed had I not been there.

Another individual stated that she played more softly than I did because she thought she kept making rhythmic

mistakes. She was thus manipulating one musical element (volume) to hide her perceived inadequacy in another (rhythmic). She may also have been saying that she felt inadequate when she compared her playing to my own. This same individual had talked about musical competition between us on two other occasions.

Finally, one youth told me that she was afraid of "messing up" because she was attempting to synchronize with my playing and I was going too fast. This was her way of communicating that I needed to empathize with her and, perhaps, adjust my expectations for her "performance."

The Adolescents Valued Musical Connectedness. The second kind of interpersonal comments related to positive connections that were made between a participant's playing and my own. Most often, these connections were rhythmic in nature, such as when we convened around a common pulse or tempo or imitated one another's rhythmic patterns. Statements relating to this aspect of interpersonal meaning were as follows:

> Chrissy: I liked it where we came together, kind of made, like, music instead of doing our own thing.
> Hayley: I liked that one [improvisation] too because we connected at the end. I felt it at the end.
> Tanisha: I liked where we were taking turns following and leading and then we would switch how we played the instruments....I liked the thing at the end when I was trying to keep up with you and you kept going faster and faster.

When asked, one individual indicated that he had been wrapped up in his own playing and had not been aware of my music; however, upon listening to the audiorecording of one piece, he was able to identify moments when we were "really playing together." Another player made no references to our relationship during the project, but spoke about how his sounds communicated certain meanings to "others."

Intrapersonal and Interpersonal Findings: Therapist

Data related to intrapersonal aspects of my experience in improvisation appear in Appendices G, J, M, P, S, and V.

Improvisation Evoked Feelings. As with several of the participants, many of my comments revolved around emotional states. I experienced immensely diverse feelings at varying levels of intensity while listening to and improvising with each participant. Some of these included boredom, disappointment, excitement, anxiety, confusion, irritation, surprise, anger, captivation, serenity, intimacy, enjoyment, invigoration, and dissatisfaction. Some of these feelings were articulated during dialogue with the individual, and some appeared in my field notes or reflective journal. The only "negative" experience I revealed to the participants was boredom; interestingly,

the two individuals to whom I admitted feeling disinterest stated that they shared this same sentiment.

There were a few improvisations in which I felt a sense of musical prowess. This seemed to occur when I perceived that I had contributed complex or well-timed rhythmic figures to the improvisation. Conversely, I felt ineffective and inept during other pieces.

Many of my intrapersonal comments reflected a curiosity or pleasure about something that was occurring. For example, I was pleased with the participants' ability to create, imitate, or sustain rhythmic patterns. I was also impressed with their creative uses of the instruments, particularly when a youth had not previously demonstrated such creativity.

I Sometimes Judged the Improvisations. I found that at times I judged favorable or unfavorable certain aspects of the participants' playing. For example, I prized improvisations that appeared to convey authenticity more highly than those pieces that did not. I also tended to value improvisations that were structured in some way, either rhythmically, melodically, or formally. Finally, I valued those pieces that created in me a sense of intimacy with the player or a pleasant feeling state such as serenity or pride.

Interpersonal Aspects Were Both Shared and Withheld. For me, the interpersonal aspects of the experience of improvisation were multi-faceted. Data reveal that sometimes I expressed the interpersonal aspects of my experience directly to the participants, and sometimes I did not. There were three primary types of conditions/situations in which I did not share my thoughts and feelings with the adolescents. The first was related to my own expectations about how the information would be received; if I sensed that sharing a particular thought or feeling would somehow disturb a participant or compromise our relationship or the process of improvisation in the future (for instance, revealing that I doubted their authenticity or felt annoyed by their resistance to my musical initiations), I tended to remain silent and register these notions in my field notes or journal. If I believed that the individual's need to verbally process the improvisation was more urgent or important than my own, I turned my attention to their experiences and again wrote about my own thoughts and feelings in my notes. Finally, there were times when I was not sure exactly what I was thinking or feeling or if my experience was pertinent to my unique relationship with the participant or, perhaps, a manifestation of counterproductive countertransference.

(Issues of countertransference are discussed briefly in the following chapter.)

It dawned on me during the final stages of analysis that in withholding some of my perceptions about the products and processes of co-improvisation, I was limiting the potential for co-construction of meaning. When disclosure was one-sided, a foundational prerequisite of co-construction was missing.

Meaningful Connections Occurred Through Musical Communication. I felt a significant connection with three of the six participants. With two of these individuals, I found meaning predominantly in our musical exchanges. (With the third, meaningful connections occurred more in our verbal exchanges.) Interestingly, when asked about their responses to our co-improvisation, the two participants with whom I felt a musical connection stated that they did not share my sentiments. Both of them said that, although it sounded different (more simultaneous pitches, louder dynamic level), it felt no different to play with me than to play on their own.

Musical incidents that contributed to meaning in my interactions with the adolescents included sharing a pulse with the other player or converging on a shared pulse after a period of rhythmic disintegration, imitating or

interlocking rhythmic figures, merging with one another's tremolo (especially with accompanying increases in intensity), providing a rhythmic or tonal holding environment while the other player is exploring, and synchronizing at the end of a piece, bringing it to a natural close.

Comparison of Participant and Therapist Experiences

As indicated by all of the data pertaining to participant and therapist experiences, there was both overlap and disparity in the way the adolescents and I ordered our sounds into meaningful music and in the specific meanings we ascribed to that music and the experience of creating it.

Our organization of the musical elements was similar in the following ways:

1. Both the participants and I were inclined toward rhythmicity (integration with a pulse).
2. Both the participants and I used rhythmic elements to establish musical connections with each other.
3. Neither the participants nor I used harmony in our improvisations.

Our organization of the musical elements was different in the following ways:

1. The participants had difficulty sustaining rhythmicity at times (integration with a pulse), whereas I did not.
2. The participants tended to repeat "signature" rhythms, whereas I tended to create variability in my rhythmic figures within and between improvisations.
3. The participants tended to establish tempo and changes therein, whereas I tended to follow their lead.
4. The participants had a limited and somewhat disorganized tonal vocabulary, whereas my expressions were unencumbered and grounded in specific tonalities.
5. The participants demonstrated notable leadership in timbral and textural variability and creativity, whereas I tended to defer to their sounds and playing configurations.
6. The participants used volume significantly in the creation and release of tension, whereas I used it to support or encourage assertive playing.

The meanings we ascribed to the experience were alike in the following ways:

1. Both the participants and I had emotional reactions to what we were hearing and/or playing.
2. Both the participants and I believed that we were able to express a range of emotions through spontaneous music-making.
3. Both the participants and I experienced moments of inadequacy and moments of competence.
4. Both the participants and I valued moments of musical interconnectedness through shared rhythmic features.

The meanings we ascribed to the experience were different in the following ways:

1. I articulated a greater diversity of feeling states than did the participants.
2. The participants experienced more pleasure related to the novelty of the improvisational experience than did I.
3. The participants identified clear connections between certain elements (volume and tempo) and specific feeling states, whereas I made no such connections.
4. The participants experienced concrete visual and auditory associations in response to the music more frequently than did I.

5. I verbalized more comments of an interpersonal nature than did the participants.

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AN INVESTIGATION OF MEANING IN CLINICAL MUSIC IMPROVISATION WITH TROUBLED ADOLESCENTS

VOLUME II

By

Susan Claire Gardstrom

A DISSERTATION

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CHAPTER SIX

CONCLUSIONS

Reflections on Integrity

Throughout data collection and analysis, I reflected on the integrity of the methodological procedures I was implementing. My overarching concern was whether or not these procedures allowed the phenomenon of the experience of improvisation to unfold naturally and fully. I was also concerned that the procedures allowed for the just and respectful treatment of the participants throughout the entire process. As a result of these reflections and in response to immediate observations and intuitions during the sessions, I made ongoing changes in the procedures; these are outlined below.

Changes during data collection:

1. *The participants and I did not listen to every audiorecording of every piece as originally planned.* This change occurred as a result of the participants' expressed desire as well as my in-the-moment hunches that listening would have been disruptive to the overall flow of the session.
2. *The participants and I did not verbally process every improvisation.* Sometimes it did not feel right to talk at length or in detail about an

improvisation. Other times, the adolescents resisted talking and I honored their resistance.

3. *I did not share my thoughts and feelings about every improvisation with the participants.* As mentioned in Chapter Five, there were times when it did not seem appropriate to share my impressions.

Changes during data analysis:

1. *I delayed my analysis of certain improvisations.* At times I found it necessary to delay my analysis of the pieces in order to hear them more clearly and describe them more accurately, especially with respect to rhythmic integration and tension.

2. *I developed a coding system based on intramusical, intermusical, intrapersonal, and interpersonal relationships.* At one point during the analysis, I launched into interpretive writing. This clearly was not the focus of the study; once I realized what had happened through consultation, I developed a system for coding the data that enabled me to account for every statement in my analysis and thus stay "true to the task."

Changes during the writing of the report:

1. *I modified the research questions so that they aligned with what the data were revealing.* In Chapter Three I noted that as the musical data emerged, it became apparent that I was gaining information about how the participants organized the musical elements in order to create meaningful music. I changed the wording accordingly.

Personal Significance of the Study

Reflections on Verbal Facilitation

When I first began the interview process with the pilot participants, I was uncertain about how to proceed, and I lacked confidence in my ability to elicit data about the experience of improvisation. This uncertainty was quite apparent in my verbal conduct in initial sessions: As I began transcribing the sessions, I noted that I had stumbled over my words, filled in uncomfortable silences with meaningless chatter, and missed golden opportunities to respond to participants' comments in a way that may have enriched their descriptions of their experience. It dawned on me that each of these responses was a reflection of my anxiety, stemming from my lack of experience with this style of interviewing. With each new session, and as my

relationships with each participant deepened, I was able to be more relaxed, more comfortable with silences, and less prone to overlook invitations into thoughtful, productive dialogue about the research questions.

I learned that I tended to rely on certain verbal techniques more than others. For example, I often used repetition in the sessions. If a participant said, "We both slowed down at the end," I would echo, "Yes, we both slowed down at the end." At first, this technique seemed like a good way to acknowledge and validate the participant's contributions. After awhile, however, I started to wonder if this technique was overused, that is, if the participant was aware of and perhaps annoyed by it. As a consequence, I began to use repetition less frequently, instead employing paraphrasing, silence, or minimal verbal responses such as "uh-huh" and "OK."

One of the most important insights gained occurred a few weeks into data collection. In order to check integrity of the method, my research consultant reviewed some of my early session transcriptions. With his input, I was able to see that, although I was attempting to maintain an open and flexible interview style, I was in fact still "managing" the sessions in an effort to influence the results. This tendency was not so apparent to me as I read

the transcripts, but as I listened again to the session recordings it became more evident. I could hear in both content and tone of voice that I was, periodically, leading certain participants in a particular direction, putting words in their mouths, or asserting or validating my own hunches or assumptions rather than eliciting theirs. One example of the latter is as follows:

> Susan: Listen to what happens between the drum and the ganza here...
> Tanisha: Back and forth.
> Susan: Like a conversation.
> Tanisha: Yeah.
> Susan: Now we're talking at the same time, aren't we? I was speeding up here to see if you'd go with me. You were trying to catch me at the end, eh? Alright.

My final statement could have reflected that I had a specific expectation for how the participant was to play and conveyed an assumption that she was, in fact, responding to that expectation. Yet it was not possible for me to know what Tanisha was doing at the end of the improvisation as she did not reveal her intentions to me.

I was able to hear that my own biases about improvisation were reflected in my words from time to time, as in the following examples:

> Susan: Do you want to play freely, or would you like to play something in particular, like your mood or where you'd like your mood to be...?

Susan: So what feeling or what thought do you want to put inside of you right now, to move you through your day in a good way?

Although seemingly innocuous, these questions could have conveyed to the participants a belief or expectation that the improvisation we were about to play would or should alter their mood, when this may or may not be the case.

I also noticed that my probes sometimes seemed to limit response options for the participants, as in the following case:

Erica: That [improvisation] had the most emotion, actually.
Susan: Did it?
Erica: Uh-huh.
Susan: OK. Do you know why that was?
Erica: I don't know, I just really got into it.
Susan: Do you think it had to do with the drum, or just where you were emotionally?

Here Erica was, in a sense, "forced" to choose one of the therapist's options; she was not encouraged to create her own response. It is obvious to me in retrospect that an open-ended question (e.g., Say more about "getting into it.") might have been a more suitable choice in this instance.

My consultant suggested that one reason I verbalized so much in each session was that I had not sufficiently prepared the participants to play and respond to the improvisations, and that consequently they needed a great

deal of verbal guidance. With that in mind, I added a brief introductory statement to each and every session, the purpose of which was to remind the participants of the aim of the study and some of the ways in which they might focus their verbal reflections. Following are two examples from actual sessions:

> Susan: I want to remind you that these instruments are for you to use any way that you'd like to and that, as we talk about what we do you could reflect on your feelings, your thoughts, what you hear in the music, any of those things, just to describe the experience. That's what I'm most interested in.

> Susan: I am doing a study because I'm very interested in how kids experience making music, what it's like for them to make music. And the kind of experience I'm interested in is called 'improvisation,' where we just make up music as we go...And some of the things you can talk about would be how you felt as you were playing, what you were thinking about, what those improvisations, those sounds might mean to you...what you hear when you listen back...maybe there are surprises in the music, those kinds of things. Does that make sense?

Reflections on Improvisation

As I progressed through this project, I took note of my musical role and responses in each improvisation. One important insight was that in attempting to give the participants choices throughout the sessions, I was at times overwhelming them. The following is a clear example of this tendency:

> Susan: What kind of a thing do you want to play for yourself?

Erica: Maybe something upbeat.
Susan: OK. Do you want to play...I can give you some words, like "anxiety" or your "safe place." I could give you the word "energy" or the words "positive feelings" or "grounded." Do you know what that means, do you have a sense of what I mean when I say "being grounded?"
Erica: Yeah.
Susan: Being "centered"...
Erica: (fidgets on the instruments, plays for about 20 seconds on the doumbek)
Susan: (interrupts playing) Erica, I'm trying to help you focus a little bit.
Erica: Yeah, I'm trying to. Um...
Susan: OK, let's take it one decision at a time. Do you want to play by yourself or with me?
Erica: I want to play with you.
Susan: Do you want...

Erica's visible retreat from our interaction to the instrument was a clear and poignant signal to me that I needed to modify my approach.

I noticed that this same tendency appeared when I introduced the participants to the instruments during the first and second sessions. Sometimes I gave the participants more information than they needed in order to play the instruments effectively. Fortunately, this tendency became obvious to me during the first few transcriptions, and I was able to make an immediate adjustment with subsequent participants. I also more carefully selected instruments for each session, taking care not to offer more choices than necessary. For

example, I typically did not duplicate timbres unless it was strategic to do so.

I was not surprised to find that my initial musical inclinations in some ways paralleled the verbal proclivities identified above. For example, I tended to play more often than not in the duets, just as I tended to talk more than remain silent. I had to make a concerted effort to make spaces in the dyadic improvisations in which the client's voice could be heard. I also had to work at balancing the number of duet and participant solo improvisations during each session. If I was not conscious of this aspect, I tended to play on all or nearly all improvisations when the decision was left up to me. I noticed that sometimes I became slightly agitated if a solo improvisation continued beyond two minutes, especially if it was not grounded in a pulse or if it consisted of excessive repetition. I also noticed that when I was not playing with the participant, I found it more difficult to stay present to the music and thus more difficult to recall the details of the experience.

Another significant finding was my propensity for establishing and maintaining a rhythmic ground in dyadic improvisations, as mentioned in the previous chapter. With all participants, I often felt as though my most frequently

assumed role was to be a source of stability upon which "musical" (well-integrated) phrases could be built. When the participants requested that I begin an improvisation with a beat, as they sometimes did, I honored that request. When I could sense a pulse emerging from what the participants were playing, as frequently happened, I typically latched on and increased my volume in order to strengthen the rhythmic ground. At times I found myself "bending" the pulse while continuing it in order to accommodate the unevenness of the participants' playing. When I sensed that participants were struggling to maintain a rhythmic motif, I usually made certain that I was playing the pulse or a simple subdivision thereof.

This urge to construct a rhythmic ground may have been reflecting a tacit bias that rhythmically integrated sounds have greater potential to develop into objects of beauty than disintegrated sounds, and furthermore, that the more beautiful an improvisation, the more meaning can be derived from it. I was reminded of a powerful statement in Miles and Huberman (1984): "Our beautiful theories need little data to convince us of their solidity, and we are not eager to encounter the many brutal facts that could doom our frameworks" (p. 242). As I reflected on this, I could not negate the fact that the participants' awareness of

disorder in their own playing, for example, could lead to a meaningful insight or feeling about their current functioning -- an experience they may not have if I were to cover up the disintegration by constantly imposing a pulse. Moreover, I could not overlook that I have experienced rich meaning in creating and/or listening to music that has no discernable rhythmic ground.

Finally, I noticed certain idiosyncrasies in my dyadic playing related to meter, rhythmic pattern, and form. I tended to use duple rather than triple meter and simple rather than syncopated rhythms. I also tended to let a form emerge in the improvisations rather than consciously impose one. Whether these tendencies impacted the essence of the participants' experience of improvisation is unclear.

Reflections on Countertransference

Although countertransference was not the focus of the present study, this dynamic materializes to some degree in all clinical work and thus should be aknowledged. Classic definitions of countertransference point to the therapist's unconscious response to the client's transference; more recent definitions have expanded to include all that the therapist brings to the relationship with the client, whether unconscious or conscious (Bruscia, 1998).

Obviously, I can only discuss the manifestations of countertransference of which I am currently aware.

In the immediacy of the sessions, countertransference was most obvious to me when I experienced sudden and/or extreme shifts in emotion. The feelings that came to the surface most quickly were frustration or anger, helplessness, and boredom, and these sometimes occurred in succession. For example, when Erica played the drums in her characteristic unchanging manner, I felt myself becoming annoyed. When she resisted my attempts to push her "off center," I felt powerless as a therapist. I then found myself losing concentration and daydreaming, which is not unlike the dissociation that Erica struggled with.

Countertransference was also evident in my work with William. When I perceived that he was playing or verbalizing in an inauthentic manner, I grew impatient. I felt angry with William for what I viewed as an intentional thwarting of my attempts to meet him in the music-making. Although he had the proficiency to improvise with great musical sophistication, he withheld, most often creating simplistic pieces with little form or expressivity. I felt helpless to intervene, and I compensated by pulling away emotionally, dulling my anger into eventual apathy.

Interestingly, a mix of anger and apathy was precisely what William himself typically revealed during our sessions.

As I listened to the audiorecordings of the sessions, I became aware of further countertransference reactions as revealed in specific improvisations. Examples include fusing with a participant's timbre or rhythm when it was unnecessary or counterindicated, providing a rhythmic ground in order to feel needed, adding rhythmic flourishes to reinforce notions of my own musical competence, and ignoring or resisting a participant's musical gesture.

It is quite possible that countertransference influenced my decisions about what to share with the participants during the verbal processing of our improvisations. At times, my need to be liked may have superceded my need to point out incongruencies or discuss difficult feelings. In addition, my need to be "right" may have manifested in a tendency to articulate definitive and premature interpretations about the meaning of the music, as when I suggested Erica's "Safe Place" was like a protective womb.

Reflections on the Analysis of Improvisation

During the actual sessions, I discovered that often I could not make sense of what I had just heard and/or played. I believe this was because the IAP profiles and

scales were not yet firmly entrenched in my vocabulary as a researcher. In retrospect, it might have been helpful to have an abbreviated list of relevant profiles and scales within sight so that as I listened and/or played, I could have made mental notes about what occurred. Perhaps a consistent protocol for in-the-moment listening would have been helpful also. Unfortunately, these potential remedies did not dawn on me until after the data collection period was over, even though I had journalled about my frustrations with this aspect of the process.

I learned a great deal through the process of aural analysis of the recorded improvisations. I was a novice in this area, having attended just one training in the IAPs prior to beginning my own data analysis. Thus, it took me a long time to analyze and describe each piece -- between 30 and 120 minutes, depending on the length and complexity of the music. I became quicker at this task as the study progressed, which suggests that practice may lead to greater efficiency.

As recommended by Bruscia (1987), I tried to allow the character of the improvisation to determine whether I would analyze by profile or scale (element). However, I noticed that I most frequently ended up focussing on a profile,

subsequently analyzing the ways in which the various elements related to that profile.

It was fairly easy for me to discern the salient elements and processes upon my first hearing, and I generally felt confident with my own appraisal of this dimension, even after repeated listenings. However, in the next stage of analysis, I learned that I was not as focussed in my listening as I would have liked to have been. Sometimes I had trouble maintaining my concentrating on one element or process in isolation; at other times, I had difficulty listening to the composite in order to perceive the influence of one element or process on another. Often, it took 10 or 15 auditions before I was convinced of my own assessment of even one element or process. Here again, I became more efficient and confident with practice.

One particularly troubling aspect of analysis was that I occasionally began to hear a pulse in solo and dyadic improvisations when my peer colleague (who was trained in aural analysis of improvisation) did not. In other words, I was again "managing" the phenomenon (this time with the perception of pulse and rhythmicity in the music) in order to create the outcome that I was hoping for. On some level, I wanted the participants' playing to be organized,

and so I not only tended to provide a steady pulse when we played together, but I sometimes heard the musical object as being more rhythmically grounded than it may have been.

Fortunately, I discovered quickly that this tendency to infer a pulse in what I was hearing was stronger when I analyzed the improvisations immediately after a session. If I allowed the improvisation to "settle" for a day, I could more effectively bracket this predisposition or employ positioned listening (Bruscia, 2001) in order to hear the music as it really was. Also, as I gained more and more musical data from each participant, it became easier to hear trends toward arrhythmicity that I could not deny.

I noticed some patterns in my reactions to specific profiles. Having identified my inclination to hear the participants' playing as aligned with a pulse more often than it may have been, I became overly cautious with my use of the integration profile. My analyses started to reflect the reverse phenomenon, that is, perceiving the absence of an underlying pulse when one was actually present. This could have been a further manifestation of my "black and white" approach to understanding. With increasing experience, I was able to employ the integration profile in a more balanced fashion. When I was confused or uncertain

about my analysis, I consulted with a colleague who had more expertise in the use of the IAPs, and he either validated or disputed my findings.

The variability profile emerged as the most "active" of all profiles, and the easiest musical process for me to perceive. This may be because I tend to think in a linear manner and can thus quickly discern changes over time. Tension was the most difficult for me to identify, perhaps because anticipatory tension (as with tremolos and cymbal crashes, for example) was lessened with each subsequent hearing. In other words, once I knew what was coming, the tension related to that musical event was greatly diminished. I grew "acclimated" to other kinds of tension as well, such as that created by the sound of a particularly harsh instrument. In response to this awareness, I began my analysis of salient processes with tension rather than variablity.

Reflections on Working With Adolescents

I encountered some surprises in the process of improvising with the adolescent participants. Because my previous experiences with adolescents and improvisation had been so positive and fruitful, I began this study with the assumption that every individual would find the musical instruments and process of improvisation appealing and

engaging. This was not the case. One female partipant declined music therapy on two separate occasions and disclosed in the final interview that she had become disinterested. She stated that she had grown tired of playing the same instruments over and over again and speculated that had there been new instruments in every session, she would have been less bored. Another participant appeared to be bored, as shown by his facial affect, posture, and mannerisms. A third individual, although active and engaged in most sessions, described certain improvisations as "boring" and "dead."

I also expected that the participants would enjoy listening to their improvisations after they played. However, only one teen took obvious delight in this aspect of the session, smiling or laughing each time. Most of the participants appeared apathetic, and one was resistant more often than not. I speculated about what was going on (boredom, embarrassment, insecurity), and wondered in hindsight whether the participants should have had the option of listening to their improvisation privately and either writing down their responses or discussing their reactions in the ensuing session. Those who chose to listen did so attentively.

I learned that the adolescents, no matter how articulate they were, had difficulty describing the experience of improvisation. I frequently heard comments such as, "I don't really know," "I can't describe it," and "It's hard to explain." I believe this was related to the ineffable aspects of music-making, but I also think some of it had to do with the participants' lack of a musical vocabulary. They simply did not know how to talk about what they had played or heard in musical terms. As a rule, they were able to identify whether the music was loud or soft and fast or slow, but they could not as easily find words to talk about aspects of rhythmic figure, meter, phrasing, melody, tonality, timbre, or texture. Seemingly as a result of this, some of the participants created metaphors to communicate what they had heard.

Implications for Clinical Improvisation With Adolescents

Although I had worked with adolescents for many years, I learned a great deal about structural, musical, and interpersonal aspects of improvisational work as a result of my involvement in this project. I will address each of these topics in turn. Here, structural aspects refer to the environmental and organizational features of the improvisation session itself. Musical aspects refer to the

features of the improvisational process and all of the tasks related to its implementation. Interpersonal aspects refer to the features of the relationship formed between the client and therapist as they affect and are affected by the improvisational process.

Structural Aspects

One of the first structural questions that must be addressed is this: Which is more effective and meaningful for adolescents -- group or individual improvisational therapy? I purposely incorporated individual sessions into the design of this study, in part because I believed that rapport would develop more quickly, leading to more open expression. After thoughtful consideration, I am not sure that this was the case. Although there were some moments of intimacy between us, it seemed like the participants and I often kept each other at an arm's length

During the tail end of this project, I held two group sessions with all of the PHP participants at IYS, including two of the study participants. I did this at the request of the IYS staff, who said that the teens who were not involved in the project had repeatedly expressed an interest in playing the drums. I noticed that the two research participants, Hayley and Chrissy, were very alert and engaged in the music-making and verbal processing.

They were eager to "show off" to their peers all that they had learned about the instruments. They contributed meaningfully to the improvisation, and they spoke about it with a refreshing openness and in greater detail than I had previously witnessed in the individual sessions. I reflected on this disparity, and one of Gaston's (1968) considerations immediately came to mind: *The potency of music is greatest in the group.* I believe this to be particularly true with improvised music, in that each member contributes his or her own unique, ever-changing, and often unpredictable voice to the whole. When six players improvise as compared to two, there are simply more possible intermusical relationships to be formed.

Another structural decision involved the type and number of instruments included in the sessions. With adolescents -- particularly those who are difficult to engage due to depression, attention deficits, or resistance -- preference is well worth considering. The participants in this study demonstrated clear preferences, favoring the drums to all other instruments, both nonmelodic and melodic. They most often selected the tubano, doumbek, and bongos, specifically. The djembe was difficult for them to hold and balance, and the talking drum, although appealing in its sound, took more coordination than most teens could

muster. The tonal instrument most preferred was the alto metallophone. Instruments played with the least interest or passion included the claves, agogo bells, and maracas. Choosing instruments that allow for meaning-making may be a less formidable task for the therapist who is armed with the knowledge of what particular sounds are preferred and what instruments are more easily manipulated by their adolescent clients.

Based on findings from this study, it seems prudent to introduce instruments for improvisation gradually. In this way, the adolescents who tend to disengage quickly may stay involved for longer periods of time. By introducing instruments progressively, the risk of overwhelming the adolescents is also minimized.

The length of the session is a further structural consideration. In this project, sessions lasted up to 50 minutes. In most cases, however, participants seemed captivated for between 20 and 30 minutes. Because this was a research project rather than individual therapy per se, the sessions did not necessarily progress according to a preplanned structure. It is possible that a consistent and predictable structure such as Stephens suggests (1983) (warm-up, core experience/working through, closure) would enable the participants to sustain interest for longer

periods of time. (Attentional problems may also be reduced in a group setting due to the increase of sensory stimulation.)

A final structural issue relates to the sequence of referential and nonreferential improvisations. In this study, all participants began with several nonreferential pieces, at my request. Referential improvisations were added later. This decision was based on my concern that some individuals might develop enduring or negative associations with certain instruments used in the creation of particularly troublesome or unpleasant referents or that the participants might come to rely on the provision of a concrete referent and find it difficult to play without one. However, findings indicate that these study participants were actually able and willing to employ the musical elements more freely and creatively in referential pieces. They used a wider range of timbres, textures, dynamics, and tempi. They also tended to reveal more about their impressions of the referential pieces and the experience of creating them. Perhaps referential improvisations could provide a strong initial impetus for a more complete exploration of the musical elements, thereby paving the way for more expressive -- and potentially more meaningful -- nonreferential improvisations.

Musical Aspects

In this project, the adolescents were inclined toward rhythmic playing. While there is certainly nothing wrong with this tendency, it may have limited their attempts at meaningful expression. In order to expand the potential for expression through nonrhythmic playing, the therapist can model fluidity in her own playing. Carefully selected referents and instruments, such as the chime tree and rainstick that produce flowing sounds, may assist the adolescent in "breaking away" from rigidity.

In that the adolescents appeared to manipulate some elements more frequently and freely than others (e.g., timbre and texture), it may be wise for the therapist to include brief didactic exercises at the start of each session. Such exercises could be designed to help the adolescents explore the full ranges of all musical elements as well as practice various rhythmic and tonal figures in order to develop a more diverse musical repertoire. The use of modeling and cooperative practice in improvisational therapy as a means to increase expressivity is not uncommon (Shoemark, 1991). Based on my experience of this study and my own clinical work, I believe that the more tools for musical self-expression and communication an adolescent can

develop, the more personally meaningful the musical experience can be.

As noted above, the participants in this study had difficulty finding words to articulate their experiences during the sessions. Just as structured playing exercises may help adolescents develop a more diverse improvisational vocabulary, exercises in listening and verbal reflection may help adolescents develop greater skill in describing improvisational products and processes. In that some individuals relied on metaphors to describe what they encountered, it would serve the therapist well to develop her own metaphoric vocabulary relative to music. In addition, the use of pictorial representations (graphs, sketches, etc.) may provide an important intermediary step for the individual who needs a tangible referent upon which to build his or her verbal descriptions.

Interpersonal Aspects

I believe the formation of strong interpersonal relationships with the participants was impeded by many factors. Most significantly, traumatic life experiences had made it difficult for these adolescents to trust other people, particularly adults. Five of the six participants had been seriously abused in their younger years by adult

family members. One had lost a mother to a drug overdose, and one had never known her parents.

Time limitations also hampered interpersonal connections. Because the participants were only available during part of the day in the summer months, the number of sessions was limited. It could be that with more extended contact, I could have gained a deeper level of trust with the teens. I believe that over time, co-improvisations with certain individuals would have become more rich and communicative, and it may have become easier to talk about the experience of playing.

A third factor has to do with the role relationships that were established at the beginning of the project. Facility staff introduced me as a researcher, and the adolescents were told they were study participants. Although I observed group sessions within each of the two programs, I was not allowed to have any regular contact with the adolescents apart from their improvisation sessions. This made it difficult for the adolescents and I to get to know each other in a way that might have promoted more intimacy. A music therapist working with troubled adolescents would have the benefit of extended engagement and a more holistic view of each individual and their musical and personal tendencies.

One significant finding of this study was that, at least in two cases, the most meaningful improvisations for me held little or no meaning for the adolescent participants. These particular experiences of co-improvisation evoked in me feelings of benevolence, gratitude, and well-being, and I was struck by the beauty of our mutual creations. The teens, on the other hand, did not appear to be particularly moved by these same improvisations, and, when asked, described the experience of co-improvisation as feeling the same as playing by themselves. The lesson here is that the therapist must guard against making assumptions about the client's meaning-making process and the significance of her role in that process. Countertransference may lead the therapist to believe that the improvisational experience is more meaningful for the client than it really is.

Implications for Education and Training

My involvement in this study has strengthened my belief that adolescents with emotional and behavioral disorders can benefit in many unique ways from involvement in music improvisation. Unfortunately, only a handful of undergraduate programs in this country appear to include training in this method as a regular and intentional feature of their curricula (Hiller, in progress).

Internship sites with a focus on improvisation appear to be equally rare. As a consequence, entry-level clinicians often lack the necessary performance and facilitation skills required to competently and confidently lead clients in even simple improvisation experiences. It is my opinion that curricular reform is imperative; every therapist ought to be able to provide her adolescent clients with as many options for meaningful self-expression and communication as possible.

A further implication of the findings is that there is a need to develop in-the-moment listening skills for use in the improvisational situation. Clinical decision-making begins with assessment, which in improvisational therapy involves listening and observing. Perhaps even rudimentary training in the profiles, scales, and gradients of the IAPs could be implemented at the undergraduate level in order to heighten students' awareness of the musical processes inherent in improvised music. Interpretive uses of the IAPs may be more relevant for the graduate student or seasoned clinician.

Implications for Research

Although some of my initial questions were answered in the process of this inquiry, new questions were generated as well, some of which serve as fodder for future research.

One question relates to the connection between "instruction" in improvisation, skill in improvisation, and meaning in improvisation. I noticed that, in general, as the participants gained experience on and comfort with the various instruments through instruction, practice, and exploration, two things happened. First, they expanded their sound vocabulary, that is, they were able to produce a broader range of sounds. Second, the adolescents became more adept at manipulating the various musical elements in an intentional way. So not only did they have more sounds from which to sample, but they had more control over the each of these sounds with respect to frequency, intensity, and duration. As they gained more control in this way, their music became more "expressive" -- that is, it seemed to more fully and accurately represent how they were thinking and feeling in the moment of music-making. Did it also become more meaningful? Elsewhere in this report, I have alluded to a correlation between meaningfulness and expressivity (one's ability to make overt one's inner life). I believe this potential link requires further examination.

An additional topic for systematic study involves the connection between the quality of the interpersonal relationship between the therapist and client as it relates

to the quality of the music and the perceived meaningfulness. Here the fundamental question is, What aspects of the interpersonal (therapeutic) relationship allow for the most meaningful music and music-making experiences? Discoveries related to this topic would not only be of interest to the music therapist working improvisationally with troubled adolescents, but would have relevance for all clinicians seeking to enhance and deepen the experience of music therapy for their clients.

REFERENCES

Aigen, K. (1995). Principles of qualitative research. In B. Wheeler, (Ed.), Music therapy research: Quantitative and qualitative perspectives (pp. 283-311). Phoenixville, PA: Barcelona.

Aigen, K. (1996). The role of values in qualitative music therapy research. In M. Langenberg, K. Aigen & J. Frommer (Eds.), Qualitative music therapy research: Beginning dialogues (pp. 9-34). Gilsum, NH: Barcelona.

Aigen, K. (1996). Improvised song in group music therapy [videotape]. Nordoff-Robbins Center for Music Therapy. St. Louis, MO: MMB Music.

Aigen, K. (1997). Here we are in music. St. Louis, MO: MMB Music.

Aigen, K. (1998). Paths of development in Nordoff-Robbins music therapy. Gilsum, NH: Barcelona.

Aigen, K. (2001). Music, meaning, and experience as therapy. Nordic Journal of Music Therapy, 10, 86-99.

Aldridge, D. (1989). A phenomenological comparison of the organization of music and the self. Arts in Psychotherapy, 16, 91-97.

Aldridge, D. (1993). Music therapy research: II. Research methods suitable for music therapy. Arts in Psychotherapy, 20, 117-131.

Aldridge, D. & Aldridge, G. (1996). A personal construct methodology for validating subjectivity in qualitative research. Arts in Psychotherapy, 23, 225-236.

Alvin, J. (1975). Music therapy. New York: Basic Books.

Alvin, J. (1976). Music for the handicapped child. London: Oxford University Press.

Alvin, J. (1978). Music therapy for the autistic child. London: Oxford University Press.

Amir, D. (1990). A song is born: Discovering meaning in improvised songs through a phenomenological analysis of two music therapy sessions with a traumatic spinal-cord injured young adult. Music Therapy, 9(1), 62-81.

Amir, D. (1992). Awakening and expanding the self: Meaningful moments in the music therapy process as experienced and described by music therapists and music therapy clients. Unpublished doctoral thesis, New York University, New York, NY.

Amir, D. (1993). Moments of insight in the music therapy experience. Music Therapy, 12(1), 85-100.

Amir, D. (1996). Experiencing music therapy: Meaningful moments in the music therapy process. In M. Langenburg, K. Aigen & J. Frommer (Eds.), Qualitative music therapy research: Beginning dialogues (pp. 109- 129). Gilsum, NH: Barcelona.

Amir, D. (1999). Tales from the therapy room. In J. Hibben (Ed.), Inside music therapy: Client experiences (pp. 267-276). Gilsum, NH: Barcelona.

Amir, D. (2001). Layers of meaning. Nordic Journal of Music Therapy, 10, 209-220.

Ansdell, G. (1995) Music for life: Aspects of creative music therapy with adult clients. London: Jessica Kingsley.

Ansdell, G. (1996). Talking about music therapy: A dilemma and a qualitative experiment. British Journal of Music Therapy, 10, 4-16.

Arnason, C. (2002). An eclectic approach to the analysis of improvisations in music therapy sessions. Music Therapy Perspectives, 20, 4-12.

Betensky, M. (1987). Phenomenology of therapeutic art expression and art therapy. In J. Rubin (Ed.), Approaches to art therapy: Theory and technique (pp. 149-166). Philadelphia, PA: Brunner/Mazel.

Bitcon, C. (2000). Alike and different: The clinical and educational use of Orff-Schulwerk (2nd ed.). Santa Ana, CA: Rosha Press.

Bohnert, K. (1999). Meaningful musical experience and the treatment of an individual in psychosis: A case study. Music Therapy Perspectives, 17, 69-73.

Bowman, W. (1998). Philosophical perspectives on music. New York: Oxford University Press.

Boyd, J. (1989). Problems and concerns with a diverse population. Music Therapy Perspectives, 6, 34-36.

Brendtro & Ness, A. (1983). Re-educating troubled youth. New York: Aldine.

Brooks, D. (1989). Music therapy enhances treatment with adolescents. Music Therapy Perspectives, 6, 37-39.

Bruscia, K. (1987). Improvisational models of music therapy. Springfield, IL: Charles C. Thomas.

Bruscia, K. (Ed.)(1991). Case studies in music therapy. Gilsum, NH: Barcelona.

Bruscia, K. (1995a). The process of doing qualitative research: II: Procedural steps. In B. Wheeler, (Ed.), Music therapy research: Quantitative and qualitative perspectives (pp. 400-427). Phoenixville, PA: Barcelona.

Bruscia, K. (1995b). The process of doing qualitative research: II: The human side. In B. Wheeler, (Ed.), Music therapy research: Quantitative and qualitative perspectives (pp.429-443). Phoenixville, PA: Barcelona.

Bruscia, K. (1998a). Defining music therapy. Gilsum, NH: Barcelona.

Bruscia, K. (1998b). Standards of integrity for qualitative music therapy research. Journal of Music Therapy, 35, 176-200.

Bruscia, K. (Ed.)(1998c). Dynamics of music psychotherapy. Gilsum, NH: Barcelona.

Bruscia, K. (2000a). The nature of meaning in music therapy. Nordic Journal of Music Therapy, 9, 84-96.

Bruscia, K. (September 25, 2000b). The improvisation assessment profiles revisited. In IAP Revisited [online], Forum of the Nordic Journal of Music Therapy. Available: http://www.hisf.no/njmt.

Bruscia, K. (2001). A qualitative approach to analyzing client improvisations. Music Therapy Perspectives, 19, 7-21.

Cassity, M. & Cassity, J. (1995). Multimodal psychiatric music therapy for adults, adolescents, and children. St. Louis, MO: MMB Music.

Christenson, P. & Ralphs, D. (1998). It's not only rock 'n' roll. Cresskill, NJ: Hampton Press.

Clendenon-Wallen, J. (1991). The use of music therapy to influence the self-confidence and self-esteem of adolescents who are sexually abused. Music Therapy Perspectives, 9, 73-80.

Corsini, R. & Wedding, D. (Eds.) (1989). Current psychotherapies (4th ed.). Itasca, IL: F.E. Peacock.

Delk, N. (1993). The clinical interview with inpatient psychiatric adolescents in songform: The use of clinical songwriting to identify the internal state. Unpublished master's thesis, Hahnemann University, Philadelphia, PA.

Dougherty, K. (1984). Music in the treatment of the alcoholic client. Music Therapy, 4(1), 47-54.

Dvorkin, J. (1991). Individual music therapy for an adolescent with Borderline Personality Disorder: An object relations approach. In K. Bruscia (Ed.), Case studies in music therapy, (pp. 219-230). Gilsum, NH: Barcelona.

Edgerton, C. (1990). Creative group songwriting. Music Therapy Perspectives, 8, 15-19.

Edison, C. (1989). The effect of behavioral music therapy on the generalization of interpersonal skills from sessions to the classroom by emotionally handicapped middle school students. Journal of Music Therapy, 26, 206-221.

Elliott, D. (1995). Music matters: A new philosophy of music education. New York: Oxford University Press.

Emunah, J. (1990). Expression and expansion in adolescence: The significance of creative arts therapy. Arts in Psychotherapy, 17, 101-107.

Erikson, E. (1968). Identity youth and crisis. New York: W.W. Norton.

Erkkila, J. (1997). From the unconscious to the conscious: Musical improvisation and drawings as tools in the music therapy of children. Nordic Journal of Music Therapy, 3, 112-120.

Erkkila, J. (2000). A proposition for the didactics of music therapy improvisation. Nordic Journal of Music Therapy, 9(1), 13-25.

Flower, C. (1995). Control and creativity: Music therapy with adolescents in secure care. In M. Heal & T. Wigram, (Eds.), Music therapy in health and education (pp. 40-45). London: Jessica Kingsley.

Forinash, M. (1989). A phenomenological perspective of music therapy. Music Therapy, 8(1), 35-46.

Forinash, M. (1992). A phenomenological analysis of Nordoff-Robbins approach to music therapy: The lived experience of clinical improvisation. Music Therapy, 11(1), 120-141.

Forinash, M. (1995). Phenomenological research. In B. Wheeler (Ed.), Music therapy research: Quantitative and qualitative perspectives (pp. 367-387). Phoenixville, PA: Barcelona.

Forinash, M. (2000). I have to wait for the moment that I'm doing to music to figure out what the meaning is. Nordic Journal of Music Therapy, 9, 74.

Forinash, M. & Gonzalez, D. (1989). A phenomenological perspective of music therapy. Music Therapy, 8, 35-46.

Frisch, A. (1990). Symbol and structure: Music therapy for the adolescent psychiatric inpatient. Music Therapy, 9(1), 16-34.

Gardstrom, S. (1987). Positive peer culture: A working definition for the music therapist. Music Therapy Perspectives, 4, 19-23.

Gardstrom, S. (1993). Partners: Intergenerational music therapy. Music Therapy Perspectives, 11, 65-66.

Gardstrom, S. (1996). Music therapy for juvenile offenders in a residential treatment setting. In B. Wilson (Ed.), Models of music therapy interventions in school settings: From institution to inclusion (pp. 127-141). Silver Spring, MD: AMTA.

Gaston, E. (1968). Music in therapy. New York: MacMillan.

Giorgi, A. (1970). Duquesne studies in phenomenological psychology, volume I. Pittsburgh: Duquesne University Press.

Giorgi, A. (1984). A phenomenological psychological analysis of the artistic process. In J. G. Gilbert (Ed.), Qualitative evaluation in the arts, II (pp. 10-37). New York: New York University School of Education, Health, Nursing, and Arts Professions.

Gladfelter, N. (1992). The effects of listening and progressive relaxation on the anxiety level of adolescent males. Unpublished master's thesis, Western Michigan University, Kalamazoo, MI.

Haines, J. (1989). The effects of music therapy on the self-esteem of emotionally disturbed adolescents. Music Therapy, 8, 78-91.

Heal, M. (1989). The use of pre-composed songs with a highly defended client. Journal of British Music Therapy, 3, 10-15.

Henderson, S. (1983). Effects of a music therapy program upon awareness of mood in music, group cohesion, and self-esteem among hospitalized adolescent patients. Journal of Music Therapy, 20, 14-20.

Hendricks, C. (2001). A study of the use of music therapy techniques in a group for the treatment of adolescent depression. Unpublished doctoral dissertation, Texas Tech University, Lubbock, TX.

Hiller, J. (in progress). A survey of clinical improvisation curricula in undergraduate programs.

Hiller, J. (1994). Relationship between music and self-concept. Unpublished master's thesis, Temple University, Philadelphia, PA.

Hong, M., Hussey, D. & Heng, M. (1998). Music therapy with children with severe emotional disturbances in a residential setting. Music Therapy Perspectives, 2, 61-66.

James, M. (1988a). Music therapy and alcoholism: I. An overview of the addiction. Music Therapy Perspectives, 51, 60-64.

James, M. (1988b). Music therapy and alcoholism: II. Treatment services. Music Therapy Perspectives, 51, 65-68.

Johnson, E. (1981). The role of objective and concrete feedback in self-concept treatment of juvenile delinquents in music therapy. Journal of Music Therapy, 18, 137-147.

Johnson, D. (1998). On the therapeutic action of the creative arts therapies: The psychodynamic model. Arts in Psychotherapy, 25, 85-99.

Jones, N. (1999). Massage and music therapies attenuate frontal EEG asymmetry in depressed adolescents. Adolescence, 34(135), 529-534.

Jungaberle, H., Verres, R. & DuBois, F. (2001). New steps in musical meaning - the metaphoric process as an organizing principle. Nordic Journal of Music Therapy, 10, 4-16.

Kenny, C. (1987). The field of play: A guide for the theory and practice of music therapy. Atascadero, CA: Ridgeview Publishing Company.

Kenny, C. (1995). Listening, playing, creating: Essays on the power of sound. Albany, NY: SUNY Press.

Kivland, M. (1986). The use of music to increase self-esteem in a conduct disordered adolescent. Journal of Music Therapy, 23, 25-29.

Kratus, J. (1989). A time analysis of the compositional processes used by children ages 7 to 11. Journal of Research in Music Education, 37(1), 5-20.

Langenberg, M. (1999). Qualitative research. Paper presented at the annual meeting of the American Music Therapy Association, Washington, D.C.

Langenberg, K. Aigen, and J. Frommer, (Eds.) (1996). Qualitative music therapy research: Beginning dialogues. Gilsum, NH: Barcelona.

Langenberg, M., Frommer, J. & Langenbach, M. (1996). Fusion and separation: Experiencing opposites in music, music therapy, and music therapy research. In M. Langenberg, K. Aigen, and J. Frommer, (Eds.), Qualitative music therapy research: Beginning dialogues (pp. 131-164). Gilsum, NH: Barcelona.

Langer, S. (1953). Feeling and form. New York: Charles Scribner's Sons.

Langer, S. (1979). Philosophy in a new key: A study in the symbolism of reason, rite, and art. Cambridge: Harvard University Press.

Laselle & Russell (1993). To what extent are school counselors using meditation and relaxation techniques? School Counselor, 40(3), 178-183.

Layman, D., Hussey, D. & Laing, S. (2002). Music therapy assessment for severely disturbed children: A pilot study. Journal of Music Therapy, 39, 164-187.

Lee, C. (1989). Structural analysis of therapeutic improvisatory music. Journal of British Music Therapy, 3, 11-19.

Lee, C. (1990). Structural analysis of post-tonal therapeutic improvisatory music. Journal of British Music Therapy, 4, 6-20.

Lee, C. (1992). The analysis of therapeutic improvisatory music with people living with the virus HIV and AIDS. Unpublished doctoral dissertation. City University, London.

Lee, C. (1995). Lonely waters: Proceedings of the international conference, music therapy in palliative care. Oxford: Sobell.

Lee, C. (2000). A method of analyzing improvisations in music therapy. Journal of Music Therapy, 37, 147-167.

Leeseberg, M. (1994). Assessment of family relationships through musical improvisation. Unpublished master's thesis, Temple University, Philadelphia, PA.

Lefebvre, C. (1991). All her yesterdays: An adolescent's search for a better today through music. In K. Bruscia (Ed.), Case studies in music therapy, (pp. 219-230). Gilsum, NH: Barcelona.

Lehtonen, K. (2000). Music in life space: A "Lewin-like" viewpoint to the meaning of music and music therapy. Canadian Journal of Music Therapy, 7(1), 19-38.

Lehtonen, K. & Shaughnessy, M. (1997). Music as a treatment channel of adolescent destructivity. International Journal of Adolescents and Youth, 7(1), 55-65.

Lehrer-Carle, I. (1971). Group dynamics as applied to the use of music with schizophrenic adolescents. Journal of Contemporary Psychotherapy, 3(2), 111- 116.

Liebman, S. & MacLaren, A. (1991). The effects of music and relaxation on third trimester anxiety in adolescent pregnancy. Journal of Music Therapy, 28, 89-100.

Lincoln, Y. & Guba, E. (1985). Naturalistic inquiry. Newbury Park, CA: Sage.

Lindberg, K. (1995). Songs of healing: Songwriting with an abused adolescent. Music Therapy, 13(1), 93-108.

Luce, D. (2001). Cognitive therapy and music therapy. Music Therapy Perspectives, 19, 96-103.

Mark, A. (1988). Metaphoric lyrics as a bridge to the adolescent's world. Adolescence, 23(90), 313-323.

Mathieu, L. (1985). A phenomenological investigation of improvisation in music and dance. Dissertation Abstracts International, 46(1-A), 14.

McFerran-Skewes, K. (2000). From the mouths of babes: The response of six younger, bereaved teenagers to the experience of psychodynamic music therapy. The Australian Journal of Music Therapy, 11, 3-22.

McLeod, J. (2001). Qualitative research in counseling and psychotherapy. Thousand Oaks, CA: Sage.

Merriam, S. (1998). Qualitative research and case study applications in education. San Francisco, CA: Jossey-Bass.

Meyer, L. (1956). Emotion and meaning in music. Chicago, IL: University of Chicago Press.

Michel, D. & Farrell, D. (1973). Music and self-esteem: Disadvantaged problem boys in an all-black elementary school. Journal of Research in Music Education, 21, 80-84.

Michel, D. & Martin, D. (1970). Music and self-esteem research with disadvantaged, problem boys in an elementary school. Journal of Music Therapy, 7, 124-127.

Miles, M. & Huberman, A. (1994). Data management and analysis methods. In N. Denzin & Y. Lincoln (Eds.), Handbook of qualitative research. Cambridge, MA: Harvard Press.

Montello, L. & Coons, E. (1998). Effects of active versus passive group music therapy on preadolescents with emotional, learning, and behavioral disorders. Journal of Music Therapy, 35, 49-67.

Moran, D. (2000). Introduction to phenomenology. New York: Routledge.

Nelson, D. & Weathers, R. (1998). Necessary angels: Music and healing in psychotherapy. Journal of Humanistic Psychology, 38(1), 101-108.

Nordoff, P. & Robbins, C. (1977). Creative music therapy: Individualized treatment for the handicapped child. New York: J. Day.

Nordoff, P. & Robbins, C. (1983). Music therapy in special education (2nd ed.). New York: J. Day.

Okun, B. (2002). Effective helping: Interviewing and counseling techniques (6th ed.). Pacific Grove, CA: Brooks/Cole.

Patton, M. (1990). Qualitative evaluation and research methods (2nd ed.) Newbury Park, CA: Sage.

Pavlicevic, M. (1997). Music therapy in context: Music, meaning and relationship. London: Jessica Kingsley.

Pavlicevic, M. (1999). Music therapy: Intimate notes. London: Jessica Kingsley.

Pavlicevic, M. (2000a). Improvisation in music therapy: Human communication in sound. Journal of Music Therapy, 37, 269-285.

Pavlicevic, M. (2000b). Music, meaning, and archaic forms: a response to Kimmo Lehtonen. Journal of British Music Therapy, 2(1), 14-18.

Peters, J. (2000). Music therapy: An introduction (2nd ed.). Springfield, IL: C.C. Thomas.

Priestley, M. (1975). Music therapy in action. London: Constable.

Priestley, M. (1994). Essays on Analytical Music Therapy. Phoenixville, PA: Barcelona.

Priestley, M. (1995). The meaning of music. Nordic Journal of Music Therapy, 4, 28-32.

Ragland, Z. & Apprey, M. (1974). Community music therapy with adolescents. Journal of Music Therapy, 11, 147-155.

Reichling, M. (1993). Susanne Langer's theory of symbolism: An analysis and extension. Philosophy of Music Education Review, 1(1), 3-17.

Reimer, B. (1989). A philosophy of music education. Englewood Cliffs, NJ: Prentice Hall.

Rio, R. & Tenney, K. (2002). Music therapy for juvenile offenders in residential treatment. Music Therapy Perspectives, 20(2), 89-97.

Robarts, J. (2000). Music therapy and adolescents with anorexia nervosa. Nordic Journal of Music Therapy, 9, 3-12.

Rubin, H. & Rubin, I. (1995). Qualitative interviewing: The art of hearing data. Thousand Oaks, CA: Sage.

Ruud, E. (1997). Music and the quality of life. Nordic Journal of Music Therapy, 6, 86.

Ruud, E. (1998). Music therapy: Improvisation, communication, and culture. Gilsum, NH: Barcelona.

Salas, J. (1990). Aesthetic experience in music therapy. Music Therapy, 9(1), 1-15.

Saroyan, J. (1990). The use of music therapy on an adolescent psychiatric unit. Journal of Group Psychotherapy, Psychodrama & Sociometry, 43(3), 139-141.

Sears, W. (1968). Processes in music therapy. In E.T. Gaston (Ed.), Music in therapy (pp. 30-44). New York: Macmillan.

Selekman, M. (1995). Rap music with wisdom: Peer reflecting teams with tough adolescents. In S. Friedman (Ed.), The reflecting team in action: Collaborative practice in family therapy. NY: Guilford Press.

Skaggs, R. (1997). Music-centered creative arts in a sex offender treatment program for male juveniles. Music Therapy Perspectives, 15, 73-78.

Slotoroff, C. (1994). Drumming technique for assertiveness and anger management in the short-term psychiatric setting for adult and adolescent survivors of trauma. Music Therapy Perspectives, 12, 111-116.

Smeijsters, H. (1997). Multiple perspectives: A guide to qualitative research in music therapy. Gilsum, NH: Barcelona.

Spradley, J. (1979). The ethnographic interview. New York: Holt, Rinehart & Winston.

Steele, A. (1975). Three year study of a music therapy program in a residential treatment center. Journal of Music Therapy, 12, 67-83.

Stephens, G. (1983). The use of improvisation for developing relatedness in the adult client. Music Therapy, 3(1), 29-42.

Stephens, T., Braithwaite, R. & Taylor, S. (1998). Model for using hip-hop music for small group HIV/AIDS prevention counseling with African-American adolescents and young adults. Patient Education and Counseling, 35(2), 127-137.

Stige, B. (1998). Perspectives on meaning in music. British Journal of Music Therapy, 12, 20-27.

Stige, B. (2002). Culture-centered music therapy. Gilsum, NH: Barcelona.

Swanwick, K. & Tillman, J. (1986). The sequence of musical development: A study of children's compositions. British Journal of Music Education, 3, 305-339.

Tervo, J. (2001). Music therapy for adolescents. Clinical Child Psychology & Psychiatry, 6(1), 79-91.

Tesch, R. (1990). Qualitative research: Analysis types and software tools. New York: Falmer.

Thaut, M. (1988). Measuring musical responsiveness in autistic children: A comparative analysis of improvised musical tone sequences of autistic, normal, and mentally retarded individuals. Journal of Autism & Developmental Disorders, 18(4), 561-571.

Tolmach, J. (1985). "There ain't nobody on my side:" A new day treatment program for Black urban youth. Journal of Clinical Child Psychology, 14(3), 214-219.

Usher, J. (1998). Lighting up the mind, evolving a model of consciousness and its application to improvisation in music therapy. British Journal of Music Therapy, 12, 4-19.

Wells, N. & Stevens, T. (1984). Music as a stimulus for creative fantasy in group psychotherapy with young adolescents. Arts in Psychotherapy, 11, 71-76.

Wheeler, B. (Ed.)(1995). Music therapy research: Quantitative and qualitative perspectives. Phoenixville, PA: Barcelona.

Wigle Justice, R. (1994). Music therapy interventions for people with eating disorders in an inpatient setting. Music Therapy Perspectives, 12, 104-110.

Wigram, T. (2000). A method of music therapy assessment for the diagnosis of autism and communication disorders in children. Music Therapy Perspectives, 18, 13-22.

Wigram, T. (January 2, 2001). The clinical applicability of the IAPs. In IAP Revisited [online], Forum of the Nordic Journal of Music Therapy. Available: http://www.hisf.no/njmt.

Wilson, A. (1970). Special education for the emotionally disturbed child. Journal of Music Therapy, 1, 16-18.

Wyatt, J. (2002). From the field: Clinical resources for music therapy with juvenile offenders. Music Therapy Perspectives, 20, 80-88.

Yalom, I. (1995). The theory and practice of group psychotherapy (4th ed.). NY: Basic Books.

APPENDIX A

Parent Consent Form

Researcher:
Susan C. Gardstrom, MA, MT-BC
Department of Music
University of Dayton
300 College Park
Dayton, OH 45469-0290
susan.gardstrom@notes.udayton.edu
937-229-3908

Faculty Advisor:
Dr. Ted Tims, MT-BC
Coordinator of Music Therapy
Michigan State University
East Lansing, MI 48824
tims@msu.edu
517-355-0000

An Investigation of Meaning in Clinical Music Improvisation With Troubled Adolescents

Dear Parent,

I am requesting permission for your child's participation in a study that I am conducting as a requirement for my doctoral degree in Music Education at Michigan State University. The purpose of the study is to learn more about music therapy with youth. Your child has been recommended for participation by their teacher.

With your consent, your child will participate in a series of no more than six music therapy sessions, each one lasting approximately 40 minutes. During these sessions, they will be invited to create music with me, using a variety of percussion instruments and an electronic keyboard. I will then interview your child about their experiences of creating music. Each session will be tape-recorded. All audiorecordings will be kept in a locked file cabinet in my office at the University of Dayton and will be destroyed at the conclusion of the study. After all sessions have been conducted, I may request an additional interview so that your child has an opportunity to clarify and validate the study results.

There are no anticipated risks of participation, although your child's involvement in the sessions may bring about emotional responses and may increase their awareness of various aspects of self, including challenges or problems that they are experiencing. Potential benefits of your child's participation include the enjoyment of creating music, increased awareness of their distinct abilities and strengths, opportunities for musical and verbal self-expression, and individualized personal attention.

Your child's participation will be completely voluntary, and they may stop participation at any time without penalty. Your child will not be identifiable by name on any audiorecordings or in any verbal or written reports resulting from this research. Whatever occurs during the sessions will be discussed only with my faculty advisor and a research consultant. Your child's privacy will be protected to the maximum extent allowable by law.

Questions about the study may be directed to me or my faculty advisor. Our addresses appear at the top of this form. Questions about your child's rights as a study participant may be directed to:

Ashir Kumar, M.D., Chairperson
University Committee on Research Involving Human Subjects
202 Olds Hall
Michigan State University
East Lansing, Michigan 48824
phone: 517-355-2180
fax: 517-432-4503
eMail: UCRIHS@msu.edu

If you consent to your child's participation in this study, please provide the information requested below and return to your child's teacher. You will receive a copy of this form once it has been signed. Thank you for your consideration.

Sincerely,

Susan C. Gardstrom, MA, MT-BC

* * * * * * * * * * * * * * * * *

_____ _____
child's name date

_____
parent/guardian signature

APPENDIX B

Participant Assent Form

(To be read to the participant after initial introductions have occurred.)

Researcher:
Susan C. Gardstrom, MA, MT-BC
Department of Music
University of Dayton
300 College Park
Dayton, OH 45469-0290
susan.gardstrom@notes.udayton.edu
937-229-3908

Faculty Advisor:
Dr. Ted Tims, MT-BC
Coordinator of Music Therapy
Michigan State University
East Lansing, MI 48824
tims@msu.edu
517-355-0000

You are being invited to participate in a research study. The purpose of the study is to learn more about what teens and music therapists find meaningful when they improvise. (Improvising means making up music while playing instruments or singing.) You have been recommended for participation by your teacher, Ms./Mr. _____. Your Mother/Father/Guardian has agreed to your participation in this study, but the decision is still entirely up to you; you can say "yes" or "no" to this invitation. There will be no penalty if you say "no." If you say "yes," you may quit at any time during the study without penalty.

If you agree to participate, you and I will meet for approximately six individual music therapy sessions. Each session will last about 40 minutes and will take place in an available room on the grounds of the school. During the sessions, we will make up music using instruments such as drums and various rhythm instruments and an electronic keyboard. Our improvisations will be tape-recorded. Afterward, we will listen to the recordings together and talk about the experience of making music. Our discussions will also be tape-recorded. I will keep the recordings in a locked file cabinet in my office at the University of Dayton, and they will be destroyed when the study is completed. After all of the sessions are finished, we may need to talk again so that you have a chance to respond to how I have reported what you have said.

The things that happen during the sessions may be discussed with two other members of my research team. If I do share information with them, I will refer to you by first name only (or first initial, if you prefer). No one will be able to identify you in any written or verbal reports that result from this study.

Questions about the details of the study may be directed to me or my faculty advisor. Our names and addresses appear at the top of this form.

Questions about your rights as a study participant may be directed to the individual whose name appears below:

Ashir Kumar, M.D., Chairperson
University Committee on Research Involving Human Subjects
202 Olds Hall

Michigan State University
East Lansing, Michigan 48823
Phone: 517-355-2180
Fax: 517-432-4503
EMail: UCRIHS@msu.edu

May I answer any questions for you at this time?

If you agree to participate in this study, please indicate by signing below. You will receive a copy of this form once it has been signed.

_____ _____
name date

_____
signature

APPENDIX C

Advanced Verbal Response Skills

(Okun, 2002)

1. Minimal verbal responses
2. Paraphrasing
3. Probing
4. Reflecting
5. Clarifying
6. Checking Out
7. Interpreting
8. Confronting
9. Informing
10. Summarizing

APPENDIX D

IAP Profile/Scale Abbreviations

Integration
Levels: Undifferentiated
Fused
Integrated
Differentiated
Overdifferentiated

RHY INT - Rhythmic Integration (Figure-Ground and Part-Whole)
MEL INT - Melodic Integration (Figure-Ground and Part-Whole)
HAR INT - Harmonic Integration (Figure-Ground)
TEX INT - Textural Integration (Part-Whole and Register & Configurations)
PHR INT - Phrasing Integration
TIM INT - Timbre Integration
VOL INT - Volume Integration

Variability
Levels: Rigid
Stable
Variable
Contrasting
Random

TEM VAR - Tempo Variability
MET VAR - Meter Variability
RHY VAR - Rhythmic Figure Variability
MEL VAR - Melodic Figure Variability
TON VAR - Tonal Ground Variability (Modality & Tonality)
HAR VAR - Harmonic Variability
TEX VAR - Texture Variability (Overall, Roles, Register, and Configurations)
STY VAR - Style Variability
PHR VAR - Phrasing Variability
TIM VAR - Timbre Variability
VOL VAR - Volume Variability

Tension
Levels: Hypotense
Calm
Cyclic
Tense

Hypertense

RHY TEN - Rhythmic Tension (Figure-Ground and Rhythmic Figure)
TON TEN - Tonal Tension
MEL TEN - Melodic Tension
HAR TEN - Harmonic Tension
TEX TEN - Textural Tension
PHR TEN - Phrasing Tension
VOL TEN - Volume Tension
TIM TEN - Timbral Tension

Autonomy
Levels: Dependent
Follower
Partner
Leader
Resister

RHY AUT - Rhythmic Autonomy (Ground and Figure)
TON/MEL AUT - Tonal/Melodic Autonomy
HAR AUT - Harmonic Autonomy
TEX AUT - Textural Autonomy
PHR AUT - Phrasing Autonomy
VOL AUT - Volume Autonomy
TIM AUT - Timbre Autonomy

Appendix E

Analysis of Improvisations: Erica

Solo Nonreferential

Improvisation #1a

Musical Description. At the very end of our fourth session, Erica elected to play this improvisation on the alto metallophone by herself, using felt-headed mallets. She used one playing configuration, a simple strike on the bar. The piece lasted 3 minutes and 5 seconds.

The form of this improvisation can be described as ABABA. In establishing the first theme (A), Erica played rapid and continuous seconds and thirds (melodically) and shifted these figures up and down the length of the instrument. The second theme (B) was a series of slow, single strikes in no particular tonal or rhythmic pattern. The A section led into the B section with an abrupt slowing of tempo. The B section flowed back into the A section with a gradual and even *accelerando* to the original tempo and playing configuration of the first theme.

Erica did not establish a tonal center. She maintained volume at *forte* until the final B section, which was played at a *piano* level. Erica ended the piece in an abrupt manner.

Erica's Organization of the Musical Elements. The rapid and somewhat uneven melodic intervals that dominated the A section of this piece resembled the subdivisions that permeated Erica's nonmelodic improvisations (see below) in that they coincided with a pulse about half of the time (RHY INT-DIFFERENTIATED). The patterns she executed were tense (RHY TEN-TENSE) and motor-based (L-R configurations) rather than melody-based. Erica's playing was not grounded in a tonal center, and she did not form cohesive melodies (MEL INT-OVERDIFFERENTIATED).

Erica seemed to find meaning in varying tempo both abruptly and gradually (TEM VAR-VARIABLE). She altered the speed in the B section and in the transitions between sections. These modifications provided a notable contrast to the ceaseless subdivisions of the A section.

Finally, although Erica maintained the intensity at *forte* for the majority of the piece (VOL VAR-STABLE), she initiated a significant *decrescendo* in the final section. In that there was no tonal grounding, this change in volume functioned to lessen the perceived tension and bring some closure to the piece.

Erica's Verbal Meanings. Erica's comment at the end of the piece was, "OK. That was great." She laughed at length and then said, "That was fun!" (INTRA-P). She

nodded toward the metallophone and said, "I *need* one of those" (INTRA-P) (At this point, a staff member entered the room and stated that Erica was expected to join her peer group in the room next door. Before she left, I asked her to name her improvisation, and she chose the title "Dream.")

My Organization of the Musical Elements. For me, the most prominent musical features in this piece were the unvarying subdivisions (RHY VAR-STABLE, RHY INT-DIFFERENTIATED) and the changes in tempo (TEM VAR-VARIABLE). Also of importance were the lack of a tonal center (MEL INT-OVERDIFFERENTIATED) and the abrupt nature of the ending.

My Verbal Meanings. As I listened to Erica's piece, I immediately began comparing what I was hearing to her previous improvisations (INTRA-P). There were obvious similarities, and I found myself feeling somewhat bored and somewhat disappointed that she seemed to be "stuck in a rut" (INTRA-P). Then, when she altered her tempo and I could sense a musical form emerging, I became re-engaged and started to perceive the piece differently -- as a subtle but significant departure from the rhythmic rigidity that had come to characterize much of Erica's playing (INTRA-P).

Erica's facial affect had been flat up until this improvisation. After she played, I witnessed a noticeable increase in her energy level and a concomitant brightening in her affect, and this pleased me (INTRA-P). I told Erica that I had enjoyed listening to her piece and that I had noticed a "different kind of energy that went into that instrument." I said, "it was neat to see that" (INTER-P). Erica agreed and laughed. (Time did not permit listening to the recording of this improvisation).

Duet Nonreferential

Improvisation #2a

Musical Description. This was a monothematic improvisation of 1 minute and 30 seconds. Erica selected the doumbek and I played the tubano. Our timbres were nearly identical. We each created two different textures in our playing: simple strikes with the hand and tremolos with the fingertips on the rim.

This piece consisted of two sections delineated by a brief pause in the music and a change in playing configuration. In Section 1 (1 minute and 10 seconds), I established a clear pulse and Erica fused with my beat. We both played simple subdivisions of the beat and duple rhythms based on these subdivisions. Our phrases were clearly defined and integrated with one another. At the

close of the section, Erica incorporated brief tremolos, syncopation, and accents into her rhythmic figures, which then became less aligned with the pulse. Tempo was constant in this segment, as was volume at *forte*.

Erica paused temporarily and I paused with her at the start of Section 2 (20 seconds). We exchanged a few words, after which she initiated a tremolo with her fingertips on the rim and I synchronized with her at a *mezzo-piano* level.

Tension occurred in the disintegration of the pulse with Erica's syncopated rhythmic patterns and our joint, sustained tremolo at the end.

Erica's Organization of the Musical Elements. Initially, Erica constructed musical meaning in this improvisation through her attachment to the pulse (RHY INT-FUSED). She immediately latched onto the beat that I established (RHY AUT-FOLLOWER), doubled it fluidly when she felt ready to do so, and then initiated a more sophisticated rhythmic figure, which included syncopation (RHY VAR-VARIABLE). Her musical phrases were distinct and integrated (PHR INT-INTEGRATED). The tempo and volume of her playing was consistent (TEM VAR-STABLE, VOL VAR-STABLE).

With increasing rhythmic complexity, Erica's integration with the beat was lost (RHY INT-DIFFERENTIATED)

and she paused for a moment. When she continued, she introduced a new texture (a sustained tremolo) (TEX VAR-VARIABLE), and pulled me with her (TEX AUT-LEADER).

Erica selected both instruments, the timbres of which were fused (TIM INT-FUSED). Tension was created by the eventual lack of integration with the pulse, Erica's abrupt pause, and the sustained tremolo.

Erica's Verbal Meanings. This was Erica's first real improvisation. She took several deep breaths before we started and spoke of being nervous (INTRA-P, INTER-P). She reminded me that she had never played the drums before and did not know how to do it or begin (INTER-P). Erica requested that I start a beat so that she could "follow it" (INTER-P).

At the point where Erica made a change in her playing configuration and rhythmic figure and fell away from the pulse, she stopped momentarily and said, "I'm trying" (INTER-P) and then, "This is fun. I love this. I'll be jamming all day!" (INTRA-P). She laughed frequently while we played and after we ended. At the conclusion of this improvisation, we almost immediately launched into our next duet improvisation.

My Organization of the Musical Elements. I used two different textures on the doumbek (TEX VAR-VARIABLE) and

played at a *forte* level throughout the piece (VOL VAR-STABLE).

At Erica's request, I established the pulse for the improvisation (RHY AUT-LEADER). My tempo was consistent (TEM VAR-STABLE). When Erica began the sustained tremolo, I immediately synchronized with her (TEX AUT-FOLLOWER). My response to the tension in the tremolo was to add three evenly-spaced flourishes at the very end of the piece.

My Verbal Meanings. During the improvisation, once Erica had maintained pulse and simple subdivisions for about 30 seconds, I prompted her to "try something different" and "experiment a little bit" (INTRA-P). After the piece, I made two statements. The first, in response to Erica's exclamation and laughter when the piece had ended, was, "You liked that, didn't you?" (INTRA-P). The second comment was, "That was great" (INTER-P).

Improvisation #2b

Musical Description. For this improvisation Erica played the doumbek and I played the tambourine and tubano. The piece lasted for 3 minutes and 9 seconds and consisted of three distinct sections. The first and third sections were organized around Erica's repetitive rhythmic motifs on the doumbek. The section in the middle was comprised of a

series of sound "spurts," some rhythmic and some arrhythmic, and a dual tremolo.

Erica began the improvisation with a 2-measure dotted and syncopated rhythmic pattern that continued throughout Section 1. This pattern was at times in alignment with a pulse. I played a variety of rhythms, and incorporated accents. Phrases were integrated with the pulse and between us.

Erica used one playing position; I used three specific configurations on the tambourine (striking, shaking, and use of fingers near the rim). Volume was highly variable, with a series of shaken *crescendi* from *mezzo-forte* to *fortissimo* on my tambourine and a *decrescendo* on Erica's drum. Tempo was constant. Timbres were differentiated at first, fused when I switched to the tubano.

Section 2 was characterized by rhythmic differentiation and variability in volume. At the end of this section, both of us played a sustained tremolo, which Erica began.

The final section was organized around a new rhythmic motif in duple meter that Erica created at the tail end of the previous tremolo. The two voices eventually fused in rhythmic, textural, timbral, and dynamic elements for 20 seconds. A short collection of arrhythmic antiphonal sound

"spurts" and an accented, rhythmic flourish on the tubano ended the piece. Volume was steady in this section.

Tension in the piece was manifested in the occasional disintegration of the shared pulse and in the erratic "spurts" following the rhythmic fusion in the last section.

Erica's Organization of the Musical Elements. Erica constructed meaning in the first part of this improvisation by immediately establishing a distinctive rhythmic figure, which continued for over a minute (RHY VAR-STABLE). At times, this figure was integrated with the pulse, but often it was differentiated from it (RHY INT-DIFFERENTIATED). Erica's volume varied (VOL VAR-VARIABLE), but her tempo and texture remained the same throughout the section (TEM VAR-STABLE, TEX VAR-STABLE).

In Section 2, Erica played offbeat (RHY INT-DIFFERENTIATED) and with a wide range of dynamics (VOL VAR-VARIABLE). She initiated a *forte* tremolo (TEX AUT-LEADER).

In the final section, Erica maintained a steady volume (VOL VAR-STABLE). She once again took the lead in establishing a rhythmic pattern (RHY AUT-LEADER). At the end of the piece, this pattern became irregular (RHY INT-DIFFERENTIATED).

Erica's Verbal Meanings. Immediately after playing, Erica sighed heavily and laughed outloud, shaking her

hands, which were red and stinging. She said, "I was starting to sweat" and indicated that she would have kept going but that her wrists had begun to hurt (INTRA-P).

During playback, Erica giggled frequently. She noted that the rhythmic pattern she had established at the beginning of the piece started to change (at the outset of Section 2)(INTRA-P). It was here that she said she was "going off somewhere," that is, losing her perceptual focus. She was aware of this loss of concentration as it was occurring (INTRA-P).

When asked to talk about the improvisation after listening to it, Erica discussed her confusion (INTRA-P). She talked freely about being distracted by the sound of the drum and, in particular, the simultaneous sound of two drums (INTER-P). She reminded me that she had never really played the drums, saying, "I'm not very good at it" (INTRA-P).

Erica shared that her greatest pleasure in this improvisation came from playing hard and loud; it was in these moments that she spoke of being "more into the music" and "feeling it, really feeling it on the drum" (INTRA-P). She stated that during the balance of the improvisation she was "trying to get to that point where I can feel it. So I'm trying to get better at it" (INTRA-P). She repeatedly

used the word "deep" to describe the feelings that are most meaningful as she listens to and plays music (INTRA-P).

My Organization of the Musical Elements. I followed Erica's lead in the beginning (RHY AUT-FOLLOWER), playing with a strong pulse (RHY INT-INTEGRATED) and in a variety of duple rhythms (RHY VAR-VARIABLE). Salient in Section 1 were frequent and abrupt changes in my volume (VOL VAR-VARIABLE) and texture (TEX VAR-VARIABLE).

In Section 2, my volume continued to be variable along with Erica's. In the final section, there was a period of synchrony when my rhythms, playing configurations, timbre, and volume joined with Erica's (RHY INT-FUSED, TEX INT-FUSED, TIM INT-FUSED, VOL INT-FUSED).

My Verbal Meanings. During playback, I was struck by the harshness of the tambourine as I played the series of shaken *crescendo*. I wondered in that moment if Erica had been as annoyed by the sound during the improvisation as I was during the reflective listening, and I felt the urge to share my rationale for playing in that manner (INTER-P). Thus I commented to Erica that I had been trying to pull her out a little bit more and encourage her to play louder. I wanted her to know that I did not intend to disturb her with the sound but that I was attempting to enable her to be as free as possible in her musical expression (INTRA-P).

Also while listening, I felt a need to acknowledge Erica's tenacity in reestablishing the new rhythmic figure in Section 3 of the piece. When this rhythmic figure aligned with the pulse, I made the comment, "Now we're back in the groove" (INTER-P).

The finale of the piece struck me as particularly satisfying. I enthusiastically commented on how great it sounded and said that I had not been aware of the musicality of the ending while improvising. There was meaning for me in the realization that my flourish on the tubano was well-timed with Erica's playing (INTER-P) and skillfully executed. I felt musically competent (INTRA-P).

Improvisation #2c

Musical Description. This was a duet of considerable length (8 minutes and 40 seconds) that occurred during our fourth session. Erica played the doumbek with rubber-headed mallets and I played the tubano.

Erica stated that she needed "a beat to play on." I thus began the improvisation by providing a rhythmic ground in a moderate tempo. Throughout the piece, I sustained the ground by playing pulse, subdivisions, and simple rhythms in duple meter such as an eighth note and two sixteenth notes followed by two eighth notes, a quarter note, and a

quarter rest. I consistently accented the first and/or third beats of the pattern.

Erica also played pulse, subdivisions, and rhythmic themes in duple meter. During the piece, our playing was mostly undifferentiated, fused, and integrated, although there were periods of extreme rhythmic differentiation during which time I continued to play the basic pulse.

Tempo remained steady. Volume remained steady at *forte*. The piece lacked tension.

Erica's Organization of the Musical Elements. Erica found meaning in aligning with the pulse as I established it (RHY AUT-FOLLOWER) and in sustained repetition of simple rhythmic patterns (RHY VAR-STABLE). Her playing configuration remained constant (TEX VAR-STABLE), and she did not vary her intensity (VOL VAR-STABLE).

Erica's Verbal Meanings. There was a fair amount of dialogue about this improvisation. Immediately after playing, as she often did, Erica sighed heavily. She said, "Alright. That feels better" (INTRA-P). When asked to be more specific, she talked about having forgotten about her worries:

> Erica: It just feels better, like I have some, uh, I don't know. I just feel a little bit happier [laughs]. Yeah, I feel happier, that's it. I kind of, like, I just, I don't care. Yeah, I feel happier.
> Susan: You don't care...?

Erica: Yeah, like I don't care, uh, I kind of forgot about my worries and stuff, like I forgot how I felt before. 'Cause when I played I kind of forgot about it, like, afterwards, yeah, I felt like, I don't know what it was, I just...yeah, I feel a lot better now.
Susan: I wonder what it is about making music that helps you forget about your worries...?
Erica: Yeah. [long pause]
Susan: What was it about playing the drums that allowed you to "check out" and forget?
Erica: Uh, beating on it. [laughs] Uh, I guess the sound of it, like, there was a little bit of confusion and a little bit of anger that I got out of it, that I let out and, uh, I guess I just escaped through whatever I was playing (INTRA-P).

Erica also said that once she had let out her confusion, she could talk more freely (INTRA-P). She explained, "I was feeling caged in and I guess I just let it out a little bit" (INTRA-P).

As we listened to the improvisation, Erica identified aspects of the improvisation that stood out for her. She said that the initial rhythmic ground that I provided was "too basic" (INTER-P). She explained, "I wanted something more complex because I was feeling more complex. I was feeling confused and different emotions all at once. I wanted something that would bring it all out" (INTRA-P). She heard anger, sadness, and worry in her playing.

When asked about her experience of playing the same thing versus something different from me, Erica said

> Well, I feel kind of happy when I play the same beat 'cause it's like, wow, I'm actually following a beat, you know. I'm actually doing this. 'Cause I've never

done that 'cause I just started playing this year, just a few weeks ago. And I'm like, then when I play differently, I kind of go with my own feeling...but even when I'm playing with somebody else, when I'm playing that same beat, I have my own emotions going on with it too (INTER-P).

Erica identified confusion in her playing, mostly when her rhythmic pattern fell away from the pulse (INTRA-P):

Erica: There's my confusion right there.
Susan: Confusion. You hear confusion when the beat stumbles a little bit?
Erica: Yeah.
Susan: [stops music] So sometimes we're right together and it's very precise, and then sometimes you feel yourself stumble and that's what you're calling confusion?
Erica: Yeah. Yup. 'Cause that's what it is. I somehow, like, lose all of it. I'm just like, wait a minute. What am I doing?...

When we had finished listening, I asked Erica if she heard the music differently in the moment than she did when she listened after the fact. She said that when she played, she was concentrating on what she was feeling rather than what she was playing. Afterward, when she listened, she is able to hear the feeling represented through the sound. She said, "When I did play that, I really didn't think I did it right, 'cause it's like, I didn't hit that at all. And then when I listened to it, I was like, wow, that really does remind me of that [feeling]" (INTRA-P).

Finally, in closing I asked Erica if the improvisation had meaning for her and if so, if she could identify what the meaning was. She responded as follows:

> Yeah, there is. I don't know. I guess, like, it does have meaning because it's expressing, you know, my emotion of what I was feeling at the time I was playing...then when I listened to that, it's what I was feeling too. I can feel that and I can hear that (INTRA-P).

In sum, Erica found meaning in the expression of her emotions through this improvisation and in being able to hear those emotions reflected back to her.

My Organization of the Musical Elements. I created meaning in the origination and maintenance of the underlying beat of the improvisation (RHY AUT-LEADER). All aspects of my music-making were steady: tempo (TEM VAR-STABLE), rhythmic figures (RHY VAR-STABLE), meter (MET VAR-STABLE), timbre (TIM VAR-STABLE), texture (TEX VAR-STABLE), and volume (VOL VAR-STABLE).

My Verbal Meanings. As I played, I felt strong and steady (INTRA-P). I was keenly aware of and pleased by Erica's sustained evenness, as she had not accomplished this kind of prolonged rhythmic organization in previous improvisations (INTER-P).

During our verbal dialogue, I noted those moments when our playing was undifferentiated or fused, saying, "I think

it happens frequently that we come together and play the same beat or pretty much the same beat. [over music] Right here, it's happening again" (INTER-P).

I also told Erica that I found it difficult to "take everything in while I'm playing, but that when I sit back and listen, I can hear things that I didn't hear while I was playing" (INTRA-P). I wondered outloud if the experience of playing and then listening to the piece provided us with different insights than simply playing (INTRA-P). I said that somehow this seemed like an important difference.

Solo Referential Improvisations

Improvisation #3a

Musical Description. The referent for this improvisation was "Night Fear." This is a monothematic improvisation of 4 minutes and 20 seconds based on Erica's feelings of terror the night before the session. She used the tubano with soft mallets and did not vary her timbre or texture significantly.

The entire piece was characterized by Erica's use of subdivisions of various tempi. These subdivisions included simple divisions of the basic pulse and accents. Initially periodic, these accents helped to define duple meter;

eventually they were erratically placed. Erica's beating was integrated with a pulse only some of the time.

Erica modified her volume only slightly, with a small *decrescendo* in the middle and near the finale.

Erica's noticeable changes in tempo included a gradual acceleration of subdivisions into a tremolo and alternating *accelerandi* and *ritardandi* to close the piece.

Erica's Organization of the Musical Elements. Erica's use of near-constant subdivisions (RHY VAR-STABLE) indicates that she found some meaning in the accumulation of tension that occurs when the pulse is doubled (RHY TEN-TENSE) and in the physical energy required to sustain this. Further contributing to the tension in the music was the overall lack of rhythmic integration with a pulse (RHY INT-DIFFERENTIATED). A *decrescendo* coupled with a *ritardando* at the very end of the piece (TEM VAR-VARIABLE) served to bring natural closure to this sustained intensity of energy.

Erica's Verbal Meanings. After this improvisation, Erica needed encouragement to talk about what she had played and experienced. She thought she had been able to express her night fear "a little bit" and especially "the very scary part of it" (INTRA-P).

As we were talking, Erica was fidgeting and tapping on the drum with one mallet. Finally she remarked, "I need to relax more" (INTRA-P). When I asked if she was agitated, she responded that she was (INTRA-P).

As we listened to the recording, Erica explained that the beginning reflected how it feels when the anxiety first appears. She said, "Here I'm just starting to get scared." When asked if there was a trigger for the fear, Erica answered, "It just happens." As the playback continued, Erica pointed to specific moments in the music and identified what was occurring in her experience:

> Susan: What's happening here? Is it still building or is something else happening?
> Erica: It's still building. I'm, like, trying to calm myself down and I'm still scared at the same time. [*decrescendo*] That's when I finally calm myself down. [*crescendo* and *accelerando*] But then it gets worse.
> Susan: So that slow and quiet part was when you were finally getting yourself grounded again and then//
> Erica: //And then it happened again. [subdivisions on rim] That's like my heart racing.
> Susan: [*accelerando*] What's happening here?
> Erica: My heart's getting faster. [random accents] Now it's like paranoia. I can't get rid of the fear. I'm angry at myself for being scared.
> Susan: [tremolo] And here?
> Erica: My heart. I always feel my heart and I can see my heart (INTRA-P).

At the end of the piece when Erica softened and slowed, she said, "It's like I'm trying to find a safe place, and I find my safe place and I'm trying to see if it scares me or

not...(last note) That's when I found it" (INTRA-P). This closing aspect of the improvisation served to bring Erica's emotional state to a point of greater rest in that it represented finding refuge from her terror.

My Organization of the Musical Elements. Once Erica began to play, it seemed to me that the piece resembled many of her previous improvisations: Her playing was not grounded in a consistent pulse (RHY INT-DIFFERENTIATED); there was little rhythmic variability (RHY VAR-STABLE); and I could apprehend only slight nuances of change in dynamics, timbre, and texture (VOL VAR-STABLE, TIM VAR-STABLE, TEX VAR-STABLE).

I experienced a high degree of tension created by the ungrounded subdivisions and random accents (RHY TEN-TENSE), and in the unpredictable changes in tempo (TEM TEN-TENSE).

My Verbal Meanings. I found it difficult to make musical meaning from this improvisation. It was long and I noticed myself growing bored as Erica played (INTRA-P). When she spoke of needing to relax just prior to playback, I suddenly realized the depth of her distress related to this referent. I then became eager to move through the listening and reflection as quickly as possible in order to avoid further anxiety for both of us. As I listened to the

recording with her, I did indeed feel myself growing anxious, as well as confused (INTRA-P).

My verbalizations during the playback were simple questions geared toward understanding how the musical elements of Erica's improvisation fit with the emotional dynamics of the referent. Although I could have shared my immediate reactions to the piece, I did not (INTER-P). Nor did I probe Erica for more detailed information about the meaning of the experience from her viewpoint (INTER-P). As soon as Erica revealed that she had found her safe place at the end of the improvisation, I halted conversation about that piece and moved quickly into the next referential improvisation, "My Safe Place."

If I were to have shared my authentic perspective on the improvisation with Erica, I would have spoken about the rhythmic chaos I heard and my difficulty in attending to and finding meaning in the piece (INTER-P).

Improvisation #3b

Musical Description. "My Safe Place," 2 minutes and 50 seconds in duration, was a monothematic piece built upon a referent that had its genesis in the previous improvisation (see "Night Fear" above). Erica played the rainstick and the soprano glockenspiel with a wooden

mallet. Two timbres were represented, with one playing configuration for each.

Characterizing this piece were phrases of varying lengths comprised of groups of adjacent notes and skips of a third. There was no tonal center and Erica did not form cohesive melodies. After about 50 seconds, she moved from rhythmic disintegration to the establishment of a fairly consistent underlying pulse that continued almost to the finale. A repetitive duple rhythmic figure made up of dotted quarter notes and eighth notes emerged and appeared occasionally.

The rainstick sounded randomly at a *piano* volume level throughout the piece, which was aborted due to an interruption in the room. Overall volume was fairly stable at *mezzo-forte*. Tempo remained constant.

Erica's Organization of the Musical Elements. Erica used two distinct timbres in this piece, with the rainstick serving as an occasional ground to the tonal figures produced on the glockenspiel (TIM INT-DIFFERENTIATED). Although disintegrated at first (RHY INT-DIFFERENTIATED), Erica's rhythmic expressions became connected with a pulse and remained so for most of the improvisation (RHY INT-INTEGRATED). Her phrase length was variable (PHR VAR-VARIABLE).

Erica did not use variety in her melodic constructions (MEL VAR-STABLE), playing mostly adjacent notes in two-note groupings. These expressions were not grounded in a particular tonality (MEL INT-OVERDIFFERENTIATED) although they fell within the chromatic scale afforded by the instrument (MEL INT-FUSED).

Erica did not vary volume to any significant degree (VOL VAR-STABLE).

Erica's Verbal Meanings. When asked, "How was that?" Erica replied, "It was pretty, it was nice" (INTRA-P). As I probed deeper, the following conversation ensued:

> Erica: I didn't get it right, like what I wanted to play or how I wanted to play it. [tilts the rainstick] I'm a perfectionist and I have to have everything right.
> Susan: Tell me what wasn't right about it.
> Erica: The sound of it, I didn't get it right.
> Susan: The instrument, or the way you played the notes...?
> Erica: I think it was the way I played the notes. It wasn't right. [plays random notes on the glockenspiel]
> Susan: You mean the patterns of notes that you played?
> Erica: Yeah. [continues to play]
> Susan: So, it didn't feel like your safe place, or it did a little bit, or...
> Erica: It did a little bit. [continues to play] (INTRA-P)

Erica was having difficulty expressing verbally what it was that did not feel "right." At this point, I suggested we listen to the recording. After more than a minute of

playback, Erica commented, "It does kind of sound like [the referent]" (INTRA-P). She went on to describe what she was hearing, and her soliloquy was very fragmented and confused:

> It reminds me of...well, it helps me go to sleep and stuff, yeah. I didn't realize...It reminds me of, like, the sky and the water...the tone, like...how it's so...it doesn't really make a melody too much. That's how it is. Like it's kind of out of proportion, like, out of...it's not real. Like if you ever saw it, you would think it was so, you know, not, like, very different, I guess. And that's what I'm comparing it to, there's no melody [plays random notes on instrument]. So that's like my safe place; there's no melody. There isn't, I mean there's no routine, kind of thing. Nothing is the same like it is here (INTRA-P).

My Organization of the Musical Elements. I was particularly aware of Erica's lack of tonal ground in this piece (MEL INT-OVERDIFFERENTIATED). I also noticed that her intervallic patterns were narrow and mostly unchanging (MEL VAR-STABLE).

My Verbal Meanings. I described the piece as having a "floating quality about it. It's not really grounded in a specific note or a specific rhythm, it's just kind of floating" (INTRA-P). I also asked Erica if the experience of playing "Night Fear," that is, representing her intense anxiety, was different from playing her "Safe Place". When she indicated that it had been different, I commented on the differences I had seen, saying that it appeared as

though she had been "really, really focussed" on the glockenspiel and that she was "putting a lot in that," meaning she was truly expressing some intensity of feeling (INTRA-P).

I likened what I had heard to being in the womb where one is protected and calm and all needs are met. I stated, "It's like we all need to return to that safe place sometimes. We all need to, especially when we're feeling fearful or anxious" (INTRA-P).

I was earnestly disappointed that Erica's expressions were cut short (INTER-P).

Duet Referential

Improvisation #4a

Musical Description. This was a referential piece of 2 minutes and 30 seconds entitled "Peaceful Dreamy Love." The referent came from a discussion with Erica about the feelings that arise as she plays and listens to music. This was the second of two attempts. A few seconds into the first piece, Erica stopped abruptly and apologized. She realized that he had chosen an instrument that was not well-suited to representation of the referent [tubano], saying definitively, "I've got to play with the xylophone." She immediately picked up the soprano glockenspiel and began again.

The piece was monothematic. Erica played the glockenspiel with a wooden mallet, and I played the cabasa and the rainstick. Erica essentially played one melodic configuration throughout the improvisation, a sequence of continuous adjacent notes that gradually descended, then ascended again. There was no pulse and no tonal center. Within each complete cycle of the configuration, Erica used *accelerandi* and *ritardandi* to create an "ebb and flow" of movement and energy. Periodically, she punctuated these phrases with up to eight repetitions of a single note. I played the cabasa on the first of the two-note groupings

and varied tempo along with Erica's movement. I switched to the rainstick and created a rush of sound to match the *accelerandi* and *ritardandi* of each cycle. The piece ended quietly with ascending skips. Volume was steady at *mezzo-forte.*

Erica's Organization of the Musical Elements. Erica obviously attached some meaning to the instrument/timbre that she used for this piece. The "voice" that she initially selected (tubano) somehow did not match her concept of the referent and, thus, did not align with the feelings she was attempting to represent. Once she selected the glockenspiel, she did not change again (TIM VAR-STABLE).

Further meaning was constructed in the predictability of the rise and fall paired with the rushing and slowing of the repeated melodic themes (MEL VAR-STABLE, TEM VAR-VARIABLE). Although it was not rhythmic, the piece was distinctly dynamic, with a great deal of movement and intensity (VOL VAR-VARIABLE). This was in keeping with the dynamic quality of the feelings Erica intended to portray. The lack of a tonal ground contributed to the dreamy character of the improvisation (MEL INT-OVERDIFFERENTIATED).

Erica's Verbal Meanings. Immediately after the last note, Erica quietly said, "OK" and sighed. When asked what it had been like to play the improvisation, she answered

> It was weird. I don't know. I tried to play it, like, it was hard. That was a hard thing to play 'cause it actually had some, like, some meaning to me (INTRA-P). Like, um, it's a touchy thing to, you know, to even talk about 'cause I never, like, told anybody that before, like, how I feel when I feel music and stuff (INTER-P).

Erica acknowledged that improvising was a personal and deep experience for her (INTRA-P). She went on to give examples of the kinds of music that transports her to a beautiful and peaceful fantasy world. She described her image of this place in stunning detail and said she had tried to create this feeling of peaceful love in her visual artwork. Erica further stated that it had been difficult to express through music the kinds of feelings that are evoked when she thinks about that place. She said numerous times, "I don't know" and "It's really hard to explain" (INTRA-P)

My Organization of the Musical Elements. I did not have immediate access to the referent as Erica experienced and understood it, so I was obliged to take my cues from her music and synchronize with its overall character (RHY AUT-FOLLOWER, PHR AUT-FOLLOWER, VOL AUT-FOLLOWER). I found it difficult to follow Erica with the cabasa, however,

because I could not control the sound well enough to compliment Erica's musical undulations. I switched to the rainstick and found this to be a more compatible with her tempo, phrasing, and volume (RHY INT-INTEGRATED, PHR INT-INTEGRATED, VOL INT-INTEGRATED).

My Verbal Meanings. Prior to playing, Erica and I had a brief but significant exchange:

> Susan: Alright, well let's play "Peaceful Dreamy Love" then.
> Erica: If I can try...
> Susan: Yeah. We'll see how it comes out. Maybe we'll be able to do it and maybe it'll be hard for us, but//
> Erica: //It's just like an emotion, I guess. I don't know how to explain it. [laughs]
> Susan: Emotions are hard to explain, but maybe we can create how it feels in the music.

With these statements, I was trying to communicate to Erica that I understood how difficult it might be to actually represent such an ineffable emotion through music (INTRA-P).

After we had finished playing, we not only discussed the difficulty of representing her refuge in musical form, but also of being able to describe the experience (INTRA-P). I used probes to elicit comments from Erica and did not share with her directly my perceptions of the piece or the experience (INTER-P).

In the field notes that I constructed about the session, I wrote the following:

> I had the sense of her extreme vulnerability. She chose the smallest and most delicate instrument in the room (except for the finger cymbals). She played with such expression, using tempo and volume to represent the cadence of her emotions. There was no predictability to the undulation of feeling, and it appeared as though she had no control over what came out. It was almost as if her feelings had taken over and were sounding through her (INTRA-P).
>
> Although I was playing with her, she appeared truly alone and I felt separate from her. She was fully focussed on her instrument and did not seem to attend to or respond to my playing. We did not connect interpersonally or intermusically to any significant degree (INTER-P).

Appendix F

Musical and Verbal Data: Erica

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Erica – alto metallophone	Coincided subdivisions with the pulse about half of the time (RHY INT-DIFFERENTIATED)		Commented, "OK. That was great!" and "That was fun"	
	Used patterns that were tense and motor-based rather than melodic-based (RHY TEN-TENSE)		Nodded toward the metallophone and said, "I need one of those"	
	Did not ground playing in a tonal center (MEL INT-DIFFERENTIATED)			
	Found meaning in varying tempo (TEM VAR-VARIABLE)			
	Maintained intensity at *forte* (VOL VAR-STABLE)			
2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Erica – doumbek Susan – tubano	Constructed meaning through attachment to pulse (RHY INT-FUSED)	Latched on to a beat that I established (RHY AUT-FOLLOWER)		Spoke of being nervous
	Initiated a more sophisticated rhythmic figure including syncopation (RHY VAR-VARIABLE)	Pulled me with her into new playing configuration (TEX AUT-LEADER)	Said "This is fun. I love this. I'll be jamming all day!"	Reminded me that she had not played the drums and did not know how to do it
	Played distinct and integrated phrases (PHR INT-INTEGRATED)	Selected identical timbres (TIM INT-FUSED)		Requested I play a beat that she could follow
	Maintained consistent tempo (TEM VAR-STABLE)			Stopped momentarily and said, "I'm trying"
	Maintained consistent volume (VOL VAR-STABLE)			
	With increasing complexity, lost integration with beat (RHY INT-			

	DIFFERENTIATED)			
	Introduced new texture (tremolo) (TEX VAR-VARIABLE)			
a. Erica – doumbek Susan - tubano, tambourine	Established and maintained a distinctive rhythmic figure (RHY VAR-STABLE)	Initiated a forte tremolo (TEX AUT-LEADER)	Indicated that she would have kept going if wrists had not hurt	Was distracted by simultaneous sound of two drums
	Often differentiated rhythm from pulse (RHY INT-DIFFERENTIATED)	Took the lead in establishing new rhythmic pattern (RHY AUT-LEADER)	Noticed that rhythmic pattern started to change; said she was losing concentration	
	Held tempo the same (TEM VAR-STABLE)		Discussed her confusion	
	Held texture the same (TEX VAR-STABLE)		Said "I'm not very good at it"	
	Played offbeat (RHY INT-DIFFERENTIATED)		Stated that she was "feeling it, really feeling it" when she played hard and loud	
	Used a wide range of dynamics (VOL VAR-VARIABLE)		Said that when she was not feeling it, she was "trying to get to that point"	
	Maintained steady volume in final section (VOL VAR-STABLE)		Repeatedly used the word "deep to describe meaningful feelings evoked through listening to and playing music	
	Played rhythmic pattern in irregular fashion (RHY INT-DIFFERENTIATED)			

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Erica – tubano With mallets ("Night Fear")	Used near-constant subdivisions (RHY VAR-STABLE)		Said she thought she had been able to express her night fear "a little bit" and especially "the very scary part"	
	Found meaning in accumulation of tension from subdivisions (RHY TEN-TENSE)		Remarked, "I need to relax more"	
	Did not integrate subdivisions with pulse (RHY INT-DIFFERENTIATED)		Responded that she was agitated	
	Used *decrescendo* and *ritardando* at end		Indicated that beating represented beating of	

	of piece to bring closure (VOL VAR-VARIABLE, TEM VAR-VARIABLE)		heart	
			Indicated that slow and quiet playing represented being grounded; quick and loud playing represented increasing anxiety	
			Said that accents represented paranoia	
			Used soft, slow playing to depict search for "Safe Place"	
			Found "Safe Place" in final note	
b. Erica - soprano glockenspiel ("My Safe Place")	Used rainstick as occasional ground to melodic figures (TIM INT-DIFFERENTIATED)		Replied, "It was pretty. It was nice"	
	Played in rhythmically disintegrated fashion at first (RHY INT-DIFFERENTIATED) ; connected with a pulse later on (RHY INT-INTEGRATED)		Said, "The sound of it, I didn't get it right"	
	Played phrases of varying length (PHR VAR-VARIABLE)		Commented during playback, "It does kind of sound like it [the referent]"	
	Did not use variety in melodic constructions (MEL VAR-STABLE)		Described the improvisation as "out of proportion," "not real," "no routine kind of thing"	
	Did not ground melodic expressions in tonality (MEL INT-DIFFERENTIATED)			
	Did not vary volume to significant degree (VOL VAR-STABLE)			

4. Duet Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Erica – Soprano Glockenspiel Susan – cabasa, rainstick ("Peaceful,	Once instrument was selected, did not change timbre (TIM VAR-STABLE)		Said it was "weird" to play	

Dreamy Love")				
	Constructed meaning in predictability of rise and fall paired with rushing and slowing of melodic phrases (MEL VAR-STABLE, TEM VAR-VARIABLE)		Said it was difficult to play because "it actually had some meaning"	
	Used variety of intensities (VOL VAR-VARIABLE)		Acknowledged that the experience was personal and deep	Stated that she had never before told anybody about her deep feelings related to music
	Did not ground melody in tonality (MEL INT-OVERDIFFERENTI-ATED)		Said numerous times that it was difficult to explain the experience of expressing feelings through music	

Appendix G

Musical and Verbal Data: Susan (Erica)

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Erica - alto metallophone	Noted unvarying subdivisions (RHY VAR-STABLE, RHY INT-DIFFERENTIATED)		Immediately began comparing what I was hearing to her previous improvisations	Told Erica that I had enjoyed the piece and the "different kind of energy that went into that instrument"
	Thought changes in tempo were prominent (TEM VAR-VARIABLE)		Found myself feeling somewhat bored and somewhat disappointed that Erica seemed to be "stuck in a rut"	
	Noticed lack of tonal center (MEL INT-OVERDIFFERENTIATED)		Became re-engaged when she altered her tempo and a musical form emerged	
	Was struck by the abrupt ending		Was pleased by noticeable increase in her energy and brightening of her affect	
2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Erica - doumbek Susan- tubano	Used two textures on the doumbek (TIM VAR-VARIABLE)	Established the pulse for the piece (RHY AUT-LEADER)		I prompted Erica to "try something different" and "experiment a little bit"
	Played at a *forte* level throughout the piece (VOL VAR-STABLE)	Synchronized with Erica's sustained tremolo (TEX AUT-FOLLOWER)	Asked, "You liked that, didn't you?"	Told Erica, "That was great!"
	Played with a steady tempo (TEM VAR-STABLE)			
b. Erica- doumbek Susan – tubano, tambourine	Played with a strong pulse (RHY INT-INTEGRATED)	Followed Erica's lead in the beginning (RHY AUT-FOLLOWER)	Intended to "pull her out" and free her expression	Shared my rationale for playing harshly on the tambourine
	Played in a variety of duple rhythms (RHY VAR-VARIABLE)	Several elements were fused at once (RHY INT-FUSED, TEX INT-FUSED, TIM INT-FUSED, VOL INT-FUSED)	Felt a sense of musical competence	Acknowledged Erica's alignment with the pulse by saying, "Now we're back in the groove"
	Made frequent and abrupt changes in volume (VOL VAR-VARIABLE)			Felt good that my flourish on the drum was well-timed with Erica's playing at the

				end
	Made frequent and abrupt changes in texture (TEX VAR-VARIABLE)			

	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Erica-tubano ("Night Fear")	Was particularly aware of Erica's rhythmic disintegration (RHY INT-DIFFERENTIATION)		Found it difficult to make meaning from this improvisation	Became eager to move through listening and reflecting in order to avoid anxiety for both of us
	Noticed that Erica played with little rhythmic variety (RHY VAR-STABLE)		Noticed myself growing bored as Erica played	Did not share my immediate reactions
	Could apprehend only slight changes in dynamics, timbre, and texture (VOL VAR-STABLE, TIM VAR-STABLE, TEX VAR-STABLE)		Felt anxious and confused while listening to the recording	Did not probe Erica for detail about her experience
	Experienced a high degree of tension created by erratic rhythms and unpredictable changes in tempo (RHY TEN-TENSE, TEM TEN-TENSE)			Noted that authenticity would have involved sharing my perception of Erica's rhythmic chaos and my difficulty in attending to and finding meaning in the improvisation
b. Erica - soprano glockenspiel ("My Safe Place")			Described the piece as having a floating quality	Commented on the differences between two referential improvisations, saying she appeared to have been focussed and expressing intensity of feeling on the glockenspiel
			Asked Erica if experience of playing night terror was different from playing refuge	
			Compared the music Erica created to being in the womb, and said we all need to return to this protected place, particularly when we are fearful or anxious	

[illegible]	Intramusical	Intermusical	Interpersonal	[illegible]
a. Erica - soprano glockenspiel Susan - cabasa ("Peaceful Dreamy Love")		Synchronized with the overall character of Erica's playing (RHY AUT-FOLLOWER, PHR AUT-FOLLOWER, VOL AUT-FOLLOWER)	Discussed with Erica her difficulty expressing the referent and describing the overall experience	Attempted to communicate to Erica that I understood how difficult it might be to represent feeling through music
		Switched to the rainstick and found this to be more compatible with Erica's playing (RHY INT-INTEGRATED, PHR INT-INTEGRATED, VOL INT-INTEGRATED)	Had a sense of Erica's vulnerability while playing	Did not share with Erica my perceptions of the piece or the experience
				Wrote that Erica appeared truly alone and that I felt separate from her
				Wrote that we did not connect interpersonally or intermusically

Appendix H

Analysis of Improvisations: William

Solo Nonreferential

There were no solo nonreferential pieces to analyze, as William did not choose to play any of this type in our sessions together.

Duet Nonreferential

Improvisation #2a

Musical Description. This was our first improvisation together, a monothematic piece lasting 2 minutes and 10 seconds. William played the cabasa and I played the doumbek. The piece was characterized by repetitive rhythmic motifs in duple meter, the first a dotted rhythm established and sustained by William in the very beginning of the improvisation, and the second a subdivided phrase that I initiated, with a slight *crescendo* and an accent on the final note. Pulse was shared some of the time, but there were several periods of disintegration when one or both of us "lost the beat." This occurred most frequently when William altered his playing configuration on the cabasa, from tapping the beads, to rubbing the beads, to shaking the entire instrument. Rhythmic variability was low, in that only two discernable patterns were used. The

established patterns were played both simultaneously and imitatively.

Overall tempo remained constant. Volume began at *mezzo-forte;* it increased slightly with the *crescendi* and decreased to *piano* when William shifted to shaking the instrument. The piece diminished in rhythmic energy and volume at the end.

William's Organization of the Musical Elements. William used the cabasa to its fullest expressive potential, creating a variety of independent sounds and combining configurations (scrape-tap, shake-tap) to produce complex timbres (TIM VAR-VARIABLE, TEX VAR-VARIABLE). He was drawn to a rhythmic style of playing and demonstrated his ability to ground his rhythmic figures in a pulse (RHY INT-FUSED). However, he used a restricted range of motifs (RHY VAR-VARIABLE), returning frequently to the dotted rhythm he established at the very beginning of the improvisation.

William played in a consistent tempo, returning to the initial pace after brief periods of rhythmic disintegration (TEM VAR-STABLE). William did not initiate changes in volume; the intensity of his playing varied only in that shaking the instrument produced less volume than other

playing configurations (VOL VAR-STABLE). He did not respond to my changes in intensity (VOL AUT-RESISTIVE).

William took the rhythmic lead in this improvisation, establishing and re-establishing the tempo (TEM AUT-LEADER) and introducing the primary rhythmic theme, which I both imitated and doubled (RHY AUT-LEADER).

William's Verbal Meanings. At the end of the piece, William whispered, "That's all I can do." I asked him whether the instrument he had selected (cabasa) worked for him. He replied, "No, it was kind of hard to do a different beat with that" (INTRA-P). He agreed with my perception that he was frustrated in his attempts to play in novel ways and indicated that the cabasa had not been particularly satisfying to play (INTRA-P). We moved immediately into another duet improvisation and did not listen to the recording of this piece.

My Organization of the Musical Elements. I took my cue from William for many aspects of this improvisation. I conformed to his tempo (TEM AUT-FOLLOWER), and, although I used a variety of rhythmic figures (RHY VAR-VARIABLE), I often "borrowed" his rhythmic motifs (RHY AUT-FOLLOWER). I also imitated his playing configurations, such as scratching the surface of my drumhead to mimic the action and sound of his scraping (TEX AUT-FOLLOWER).

I varied the intensity level of my playing (VOL VAR-VARIABLE), to which William did not respond noticeably.

My Verbal Meanings. This was William's first musical endeavor with me, and I was pleased that he was able to sustain rhythmic patterns, which neither of the two prior individuals had done with any regularity (INTRA-P). I was also impressed with William's creative use of the cabasa, an instrument he had never played before (INTRA-P). In my field notes, I wrote

> While playing, William appeared to be having difficulty manipulating the instrument as he desired; he shifted it from one hand to the other and grimaced a few times in response to what he heard himself produce (INTRA-P). After the improvisation, he stated that it was hard to produce different rhythms with the cabasa, and he agreed with my notion that perhaps it was not a particularly satisfying instrument to play (INTRA-P).

Seemingly, William was controlling many aspects of this improvisation, yet he watched me closely while we played and imitated a few rhythmic fragments of mine; this told me he was responsive to my music and me at some level (INTER-P).

My final comment was that "The ending was lackluster compared to the beginning of the piece, which was strong and rhythmic (INTRA-P)."

Improvisation #2b

Musical Description. This improvisation somewhat resembled a melodic solo with rhythmic accompaniment, consisting of three sections and a coda. William selected the claves, which he played in one manner, and I chose the soprano glockenspiel, which I played by striking and producing *glissandi*.

I began the piece with *glissandi* and repeated notes. William entered on the claves with clicks of variable rhythmic grounding. I continued with scalar passages leading to a series of repeated notes on C, which became established as the tonal center. At this point, we moved from rhythmic contrast and conflict to fusion, and the pulse was shared between us. Volume in this section was steady at *mezzo-forte* except for one slight *crescendo*, which I initiated.

Section 2 consisted of melodic motifs in triple meter and centered on C. William supported the melody with a simple pulse. Because there were no discernable accents in his playing, it was unclear whether we shared the meter. I introduced syncopation, and William broke pulse and subsequently paused. After I played two *glissandi*, William established a subdivided pulse in a slower tempo. Volume was unwavering at *forte*.

The third section was comprised of more clearly defined melodic phrases, this time in a shared duple meter. William and I used accent and subdivision with the phrase to define meter. The segment ended with a descending scale and an ascending arpeggiated C major chord. Volume was stable.

The coda was marked by a tremolo with a *crescendo*, which William initiated. I joined with him and then launched into 10 rapid, ascending *glissandi* at a *fortissimo* level. William paused during the *glissandi*, then played a final click to end the piece.

Tension was created by the *crescendo* in the final tremolo and in the loudness and speed of the final *glissandi*.

William's Organization of the Musical Elements. William was both a leader and a follower in this duet improvisation. For much of the piece, he served as the accompanist, providing the rhythmic ground rather than specific rhythmic motifs (RHY AUT-FOLLOWER). He also synchronized with and imitated some of my rhythmic themes (RHY AUT-FOLLOWER). On the other hand, he did establish a change in tempo that defined the third section (TEM AUT-LEADER), and he initiated a tremolo at the end, with which

I merged (TEX AUT-LEADER). Furthermore, he defined the finale of the piece.

There were no changes in the intensity of William's playing, perhaps due to the limited range of volume possible on the claves (VOL VAR-RIGID).

William's Verbal Meanings. When asked if the claves had served him better than the cabasa from the previous improvisation, William answered that they had, saying, "I like these" (INTRA-P). As we listened together, William did not initiate dialogue. When I mentioned I was becoming disinterested at one particular point in the music, William indicated that he too was getting bored. He said, "I didn't know how to, what to play or anything" (INTRA-P).

When I asked which improvisation William liked better, the first (see above) or the second (this piece), he answered that he preferred the second one. He explained that he liked the instrument better because he "could make different noises a lot easier than with that [cabasa]" (INTRA-P).

William titled the improvisation "Rain and Thunder" because to him, the glockenspiel sounded like rain and the claves sounded like thunder (INTRA-P).

My Organization of the Musical Elements. In this improvisation, I found meaning in musical variety,

exploring many options within each of the musical elements. First, my playing configurations were diverse in that I employed single strikes, tremolos, and *glissandi* (TEX VAR-VARIABLE). I used the full range of pitches on the instrument, as well as a variety of means to establish and maintain a clear tonality (MEL INT-UNDIFFERENTIATED), such as playing repeated notes on the tonic, using scalar passages that terminated on C, and stressing the dominant-tonic relationship. I created an assortment of melodic and rhythmic figures in two different meters (MEL VAR-VARIABLE, RHY VAR-VARIABLE, MET VAR-VARIABLE). Finally, I used a wide range of dynamics, with both gradual and abrupt changes (VOL VAR-VARIABLE).

Although I took musical initiative in this piece, I also deferred to William's tempi and changes therein (TEM AUT-FOLLOWER).

My Verbal Meanings. As we listened to the recording, I made a few comments to William. First, I noted that he had paused for a moment after falling away from the pulse and then had returned to the duet with a precise rhythm. By drawing his attention to this feature of his playing, I was trying to validate his attempt at self/musical organization (INTRA-P). I recognized that I had been "floundering" during that same period of time, and that his

rhythm provided a foundation for me "that I could latch on to and kind of build around" (INTER-P). Finally, I shared that I was feeling bored at one point and that this disinterest prompted me to change what I was playing (INTRA-P).

Solo Referential

Improvisation #3a

Musical Description. This improvisation was called "My Outspoken Personality" and was 2 minutes and 20 seconds in duration. William sat on the floor and played the bongos.

This was a monothematic piece of variable rhythmic ground. William created rhythmic patterns in duple and triple meter on alternating drums (large and small) and tremolos on the rim followed by single strikes in the middle of the drum heads. Although the voicing was monophonic, William used all three possible sound combinations: large drum alone, small drum alone, alternating large and small drums.

Tempo was variable. Volume remained invariable at *mezzo-forte*, with the exception of a slight *decrescendo* at the midpoint. Tension was created by the lack of a stable pulse in William's playing.

William's Organization of the Musical Elements. William played with a mixture of rhythmic stability and instability. He formed and revisited a rhythmic theme in duple meter comprised of a dotted eighth/sixteenth note unit followed by two eighth notes (RHY VAR-STABLE). Several times, this theme flowed into a triple meter figure consisting of a quarter note, two eighth notes and a final quarter note (MET VAR-VARIABILITY).

When playing these rhythmic patterns, William was grounded in a consistent pulse some of the time (RHY INT-INTEGRATED). However, he was unable to sustain these figures for more than four or five repetitions after which he would deviate greatly from the pulse (RHY INT-OVERDIFFERENTIATED). When this happened, William would pause, play erratic strikes, or create tremolos. After these periods of disintegration, William would typically return to the dotted theme and begin another rhythmic section.

William's Verbal Meanings. When asked about the experience, William said, "I liked it. It was fun" (INTRA-P). As we listened to the initial moments of the improvisation, he said, "I play the same [dotted] rhythm except in different ways." A while later, he changed his description:

> I change a lot. Well, I don't so much change my...the platform's the same, but I go in all different directions. It starts with all the same beat and then it goes in all different directions (INTRA-P).

When asked how that related to his personality, William answered

> 'Cause I can start at one thing but that doesn't mean I'm just going to stay there forever. Like who I am and what I want to be, what I like and don't like, or my opinions about certain things (INTRA-P).

William noticed that his playing became louder at the end of the piece. I asked him how it felt to get louder, and he replied that he "didn't really notice" as he was playing. In retrospect, he said the loudness represented that as he got older, he became more opinionated (INTRA-P).

William indicated that he liked the improvisation the way it was and would not change anything (INTRA-P). He also thought it was a good representation of his personality (INTRA-P).

My Organization of the Musical Elements. I was struck by William's constant return to the dotted rhythm established at the beginning of the piece and found in other improvisations (RHY VAR-STABLE). I also noticed his fairly fluid movement from duple to triple rhythm and back again (MET VAR-VARIABLE). Finally, I felt musical tension as a result of William's lack of consistent alignment with the pulse (RHY TEN-TENSE).

My Verbal Meanings. As I listened, I tried to figure out how the sounds William was creating related to his outspoken personality (INTRA-P). There was less dynamic intensity and contrast than I would have expected -- I was prepared for *forte* or *fortissimo* playing with accents and *crescendi/decrescendi* (INTRA-P). The piece was also more rhythmically structured than I anticipated it would be (INTRA-P). I was bothered by the tension in the piece as well as by the drab ending (INTRA-P).

Improvisation #3b

Musical Description. The referent for this improvisation was "A Part of My Personality That I Usually Keep Hidden." The piece was 4 minutes and 12 seconds in duration. William used five different instruments, playing them in the following sequence twice: agogo bells, rainstick, triangle, jinglestick, and bongos.

This piece was characterized by random strikes occasionally punctuated by two rhythmic figures, the dotted duple theme from previous improvisations, and a syncopated pattern comprised of two quarter notes followed by a sixteenth-eighth-sixteenth unit and two eighth notes.

Salient for the entire improvisation is the variability of timbre and texture, the lack of a consistent pulse, and invariability of dynamics and rhythmic pattern.

Tension was created by the lack of a consistent pulse and William's sudden changes in timbre.

William's Organization of the Musical Elements. William's music was distinguished by variability of timbre and texture (TIM VAR-VARIABLE, TEX VAR-VARIABLE). He played each of the five instruments in more than one way: He struck the agogo bells while open and muted; he shook the rainstick and tapped it while tilting it; he played the triangle in an open and muted manner, with single strikes and tremolos; he shook and tapped the jingle stick; and he played single strikes and tremolos on the bongos.

Most of William's musical expressions lacked a rhythmic ground (RHY INT-OVERDIFFERENTIATED). He did rely somewhat on two previously executed rhythmic patterns to provide occasional stability for the piece (RHY VAR-STABLE), although these rhythms did not consistently coincide with a pulse (RHY INT-DIFFERENTIATED).

William's Verbal Meanings. When asked to talk about what he played, William gave a lengthy explanation:

> Um, I started with one at the start [agogo bells], and then I tried something new [rainstick]. And then I wasn't feeling it, and then I tried something else that was new and I didn't really like it [triangle], and then I tried something else that was new and didn't really like it [jingle stick], tried something else and then I liked it [bongos]. And then I went back through, the same way - I've got to do the same thing over and over again. Try something new and if I

> don't like it, I keep trying until I make myself to like it (INTRA-P).

Asked to explain what part of his personality was being reflected by what he played, William replied, "That I try everything over and over again until I make myself to like it. I try everything new" (INTRA-P). When asked why this was kept hidden, he said, "I don't really know" (INTRA-P).

William found no significance in the fact that he had used many different instruments for this improvisation, but he indicated that he preferred the bongos to the other instruments (INTRA-P). He elaborated by saying

> I like the way it sounds, it feels good to play it, it just gives life a rhythm. Gives me a rhythm to keep going to. 'Cause life doesn't always have a rhythm, it's always different. But with these, you can just make one set rhythm and you can keep it going and going and going and going. Yeah, until you stop (INTRA-P).

He concluded by saying that he had "marked his own beat" in the improvisation (INTRA-P).

My Organization of the Musical Elements. For me, William's use of multiple instruments created a sense of agitation (TEX TEN-TENSE). I found myself listening for one of the two established rhythmic figures to appear so that I could relax a bit and make sense of what I was hearing (RHY VAR-STABLE).

My Verbal Meanings. As I listened to William play, I found myself wondering if the personality attribute he was representing was agitation or disorganization (INTRA-P). It also occurred to me that in playing in a predictable sequence, he was attempting to portray a tendency to be methodical or to repeat activities (INTRA-P). His playing did not seem intentional or focussed to me (INTRA-P). In my field notes, I wrote

> This appeared to be a carefree exploration of the instruments rather than a thoughtful representation of William's personality attribute. The repetition of the instrument sequence appeared hurried and motoric rather than "musical," and his verbal description of the improvisation seemed to reflect that same inattentive attitude (INTRA-P).

Improvisation #3c

Musical Description. This improvisation was 2 minutes and 10 seconds in duration and was based on the referent "Annoyed." William stated that he had been "pretty happy" until he had become annoyed at a peer in the treatment program before the session. He played the alto metallophone with rubber-headed mallets in three ways: single strikes with open and muted bars, and a *glissando.*

William's playing was continuous. Sometimes he played in random pitch sequences, and sometimes he played identifiable rhythmic motifs within discernable meters. Two of the recurrent motifs were highly syncopated.

There was no tonal center, and William did not create cohesive melodies. His tonal material consisted of small and large leaps and repeated notes.

Tempo was variable, as was volume, ranging from *piano* (*glissando*) to *forte*.

William ended the improvisation with a slow, muted descending scale and a barely audible *glissando*.

William's Organization of the Musical Elements. William represented this referent through constant, uneven rhythmic motion. Most of his playing did not conform to a consistent pulse (RHY INT-DIFFERENTIATED), and tempo changed frequently (TEM VAR-VARIABLE). William used a variety of rhythms (RHY VAR-VARIABLE), repeating two distinct rhythmic motifs in two different meters (MET VAR-VARIABLE), both of which had manifested as themes in previous improvisations (RHY VAR-STABLE). His volume changed noticeably when he muted the bars and with the final *glissando* (VOL VAR-VARIABLE, TEX VAR-VARIABLE). There was no tonality established (MEL INT-OVERDIFFERENTIATED).

William's Verbal Meanings. In response to my prompt to talk about what it was like to play "Annoyed," William replied, "Being annoyed is very easy" (INTRA-P). His notion was that anything someone might produce on an

instrument would sound annoyed if that person was annoyed to begin with. He believed that his annoyance was reflected in the muted tones he played in the upper register of the metallophone (INTRA-P). He likened these to sighs and the "growls" that accompany frustration:

> William: [plays loud muted tones] You know, like [sighs in an exaggerated fashion], when people just sit there and they go [sighs with each note played]. Kind of like that.
> Susan: Uh-huh. Like they're sighing out of frustration?
> William: Yeah. Like when you're trying to breathe and you go [plays and breathes] and you go "ahh" and you don't have words, you just go "r-r-r-r-r!"
> Susan: Did you do that, did you go "r-r-r-r-r?"
> William: No.
> Susan: How come?
> William: It's just not me, I don't know. I never do that, so I don't know. I just tell you. I don't get angry, I just let you know.
> Susan: So you use your words to express.
> William: I'm very outspoken and you would know [laughs]...If I don't like something, you'll find out [laughs](INTRA-P,INTER-P)

William did not care to listen to this improvisation.

My Organization of the Musical Elements. As I listened to William play this improvisation, the lack of consistent pulse was salient (RHY INT-DIFFERENTIATED), as was the use of both familiar and new rhythmic motifs (RHY VAR-STABLE, RHY VAR-VARIABLE). I noted William's change of playing configuration (TEX VAR-VARIABLE) and the resulting change in timbre (TIM VAR-VARIABLE).

My Verbal Meanings. My first impression of this piece was that the rhythmic organization somehow belied the referent, which suggested chaotic sounds to me (INTRA-P). I was surprised that William's representation of "Annoyed" was not louder and more forceful than it was, especially considering how he had described his outspoken nature (both in this and a previous session) and the forthcoming manner in which he communicates with other people when he is displeased. In general, I sensed an incongruity between what he played and how he described himself. In my field notes, I wrote

> William's comments about the improvisation didn't quite stack up. On the one hand, he depicted annoyance as a series of frustrated sighs [muted strikes] and "growls" ["r-r-r-r-r"] that one might use when one does not have words ["ahh"]. On the other hand, he talked about himself as someone who does not "growl" but who uses words in conflict situations. The only way I can make sense of this is if, in fact, he played how *other* people handle being annoyed rather than how *he* handles the feelings.
>
> I wonder why William chose to pass over the reflective listening of his solo piece. I wish I would have inquired about these confusions and curiosities (INTRA-P).

Improvisation #3d

Musical Description. This referential improvisation was 2 minutes and 20 seconds in length and was based on the referent "Sad," which William selected. It was a monothematic "soundscape" consisting of scrapes and taps on

the guiro. William established no discernable pulse, nor did he use specific rhythmic patterns.

The tempo of William's scraping was highly variable, as was the volume, which ranged from *pianissimo* to *fortissimo*. Changes in speed and volume were both abrupt and gradual.

Near the end of the piece, William employed the rainstick, tilting it randomly. He ended the improvisation with a tap on the guiro and a thud of the rainstick on the floor. Tension was created in the lack of pulse and abrupt changes in tempo and volume (RHY TEN-TENSE, TEM TEN-TENSE, VOL TEN-TENSE).

William's Organization of the Musical Elements. There was no relationship between William's playing and an underlying pulse (RHY INT-OVERDIFFERENTIATED). In a sense, this aspect enabled him to make frequent and extensive modifications to the rate of his playing (TEM VAR-CONTRASTING) and to turn his attention to nonrhythmic expression. He used both instruments in multiple ways to produce multiple timbres (TEX VAR-VARIABLE, TIM VAR-VARIABLE), and he varied volume greatly and randomly (VOL VAR-RANDOM).

William's Verbal Meanings. As we listened, William explained that his playing represented changes in the

intensity of his sadness through the manner in which he scraped the guiro. Short scrapes represented "not very sad, or not showing it as much that I'm sad" (INTRA-P). He went on to say, "I don't show my feelings really well. I hide them," and that when he was scraping softly, it represented hiding from others (INTER-P). Loud, long scrapes represented, "Let people know, I'm sad. Leave me the hell alone, please" (INTER-P).

When asked why he used two instruments, William said that the rainstick represented tears, "like somebody's crying" (INTRA-P). He stated that sometimes he cries when he is sad, but that sometimes he just gets angry. He went on to say that he becomes aggravated or annoyed with himself or other people when he is sad because he does not understand why he's sad (INTRA-P).

When I pointed out that his description of the experience of sadness seemed to be an amalgam of many different feelings, William said that he can not sort them out, and that he responds to "which one hurts more, which one is...more serious and more up-close and personal" (INTRA-P). William reiterated that he did not have trouble feeling or expressing sadness or annoyance, but that happiness was more difficult for him to feel and convey (INTRA-P).

My Organization of the Musical Elements. I found the contrasts in this piece most meaningful. William employed drastic changes in tempo and volatile changes in volume (TEM VAR-CONTRASTING, VOL VAR-RANDOM).

My Verbal Meanings. I experienced this improvisation as one of William's most authentic expressions (INTRA-P). I wondered if perhaps this had to do with a perception that our rapport was improving (INTER-P) or the fact that he himself had chosen the referent (INTRA-P). William approached the instrument with intent, and his affect matched the character of his music as he created it. After the improvisation had ended, I mentioned to William that his face looked sad to me (INTER-P).

Duet Referential

Improvisation #4a

Musical Description. William and I created this monothematic duet in our last session. He was feeling "blah" as he came in the room, so that became the referent for this improvisation. William selected the alto metallophone with felt-headed mallets, and I chose the bongos. The piece was 2 minutes and 50 seconds in duration.

Two features characterized this piece. The first was the repetitive use of a specific rhythmic figure, a dotted

eighth/sixteenth note unit, two eighth notes, and an eighth note followed by an eighth rest, in triple time. William established this theme and we both employed it throughout the improvisation.

The second salient feature was the lack of a shared pulse. Although each of us played in a rhythmic fashion, we did not coincide consistently with one another. Frequently, our downbeats did not align.

William used identical or similar melodic configurations throughout the piece, such as a pair of ascending seconds followed by a three note scale (e.g., C-D, C-D, E) or descending thirds followed by an ascending second (e.g., C-A, C-A, B). William used the full range of the pitches on the instrument. He did not situate his playing within a tonal center. For two repetitions of his theme, he used the handle rather than the head of the mallet to strike the bars. The piece ended with a descending scale and an ascending *glissando* accompanied by single strikes on the drum.

Overall tempo was variable with a slowing in the middle of the piece and a gracious *ritardando* at the end, which William initiated. There were slight changes in William's volume and more pronounced contrasts in mine.

Tension resulted from the lack of rhythmic integration.

William's Organization of the Musical Elements. William played one rhythmic/melodic theme in one meter throughout the piece (RHY VAR-STABLE, MEL VAR-STABLE, MET VAR-STABLE). This pattern was neither consistently integrated with an underlying pulse nor with my playing (RHY INT-OVERDIFFERENTIATED). William's tempo was inconsistent (TEM VAR-VARIABLE), and his dynamics varied somewhat, as when he initiated a decrescendo at the end of the improvisation (VOL VAR-VARIABLE, VOL AUT-LEADER). Tension was evident in the lack of rhythmic organization (RHY TEN-TENSE).

William's Verbal Meanings. When asked if the piece sounded "blah," William answered, "No, it sounded pretty good" (INTRA-P). I asked him to rename it, and he gave it the title, "Annoyed." He said that he was feeling annoyed and so he created annoyed sounds (INTRA-P). He identified the high pitches on the instrument as those that sounded the most annoyed, saying, "I don't like the high notes" (INTRA-P)

When I commented that he had used one rhythmic pattern repetitively, William said that he finds one particular

thing that he likes and uses it over and over again until he finds something different (INTRA-P).

William expressed that he enjoyed playing the metallophone but that he prefers the bongos. When I asked him why he had not chosen the bongos, he replied "because I like banging on stuff. And because I like making different sounds when I bang on stuff" (INTRA-P).

My Organization of the Musical Elements. I had difficulty organizing my rhythms to fit with William's expressions during most of this piece (RHY AUT-FOLLOWER). Although he was playing precise rhythmic figures, they often began slightly after the downbeat. Thus, I had difficulty orienting my rhythms around a pulse that was consistently aligned with his pulse (RHY INT-DIFFERENTIATED). Toward the end of the piece, I shifted what I did from playing his rhythm in synchrony (RHY INT-UNDIFFERENTIATED) to placing varied rhythmic fragments in the space at the end of his figure. In this way, I was able to accommodate the variability of the pulse.

My Verbal Meanings. Co-creating this improvisation with William was a frustrating experience until I figured out how my need for rhythmicity could find expression within his established pattern (INTER-P). Up until that point, I heard my musical declarations as forceful -- loud

and accented -- as if to demand William's attention and compliance with my beat (INTER-P). Near the end, I experienced some satisfaction that, in fact, we could relate musically within the same time frame (INTER-P).

Appendix I

Musical and Verbal Data: William

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized

1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
WILLIAM DID NOT PLAY ANY SOLO NONREFERENTIAL IMPROVISATIONS				

2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. William - cabasa Susan - doumbek	Created a variety of sounds (TIM VAR-VARIABLE)	Did not respond to my changes in intensity (VOL AUT-RESISTIVE)	Said it was hard to play different beats on the cabasa	
	Combined configurations (TEX VAR-VARIABLE)	Established and reestablished the tempo (TEM AUT-LEADER)	Agreed that he had been frustrated and that instrument had not been satisfying	
	Demonstrated ability to ground rhythmic figures (RHY INT-FUSED)	Introduced the primary rhythmic theme, which I imitated and doubled (RHY AUT-LEADER)		
	Used restricted range of motifs (RHY VAR-STABLE)			
	Returned to original pace after periods of disintegration (TEM VAR-STABLE)			
	Did not vary intensity (VOL VAR-STABLE			
b. William - claves Susan - glockenspiel	Did not change volume (VOL VAR-STABLE)	Provided the rhythmic ground rather than specific motifs (RHY AUT-FOLLOWER)	Said "I like these [claves]"	
		Synchronized with and imitated my rhythmic themes (RHY AUT-FOLLOWER)	Indicated boredom, saying "I didn't know what to play or anything"	
		Determined change in tempo (TEM AUT-LEADER)	Said he liked the claves better than the cabasa because he "could make different noises a lot easier"	
		Initiated tremolo (TEX AUT-LEADER)	Said the piece sounded like rain and thunder	

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. William – bongos ("My	Formed and revisited dotted rhythmic theme (RHY VAR-STABLE)		Said, "I liked it, it was fun"	

Outspoken Personality")				
	Switched from duple to triple meter (MET VAR-VARIABLE)		Said, "It starts with the same beat and then it goes in all different directions"	
	Was grounded in a pulse some of the time (RHY INT-INTEGRATED)		Stated, "I start at one thing but that doesn't mean I'm going to stay there forever"	
	Was unable to sustain patterns and deviated from pulse (RHY INT-OVERDIFFERENTIATED)		Said that the loudness represented getting more opinionated as he aged	
			Indicated he liked the piece the way it was and would not change anything	
			Thought the music was a good representation of his personality	
b. William – agogo bells, rainstick, triangle, jinglestick, bongos ("Part of My Personality That I Keep Hidden")	Used variable timbre (TIM VAR-VARIABLE)		Said, "I try everything over and over again and make myself to like it"	
	Used variable texture (TEX VAR-VARIABLE)		Said he did not know why he kept this aspect of self hidden	
	Played without rhythmic ground (RHY INT-OVERDIFFERENTIATED		Preferred the bongos to the other instruments	
	Relied on two rhythmic patterns repeatedly (RHY VAR-STABLE)		Stated that it felt good to play the bongos and "gives life a rhythm" to keep going and going	
	Did not consistently coincide rhythmic figures with pulse (RHY INT-DIFFERENTIATED)		Said he had "marked his own beat" in the improvisation	
c. William - alto metallophone ("Annoyed")	Did not conform to a consistent pulse (RHY INT-DIFFERENTIATED)		Thought that "being annoyed is very easy"	
	Changed tempo frequently (TEM VAR-VARIABLE)		Believed his annoyance was reflected in upper register of	

			metallophone	
	Used a variety of rhythms (RHY VAR-VARIABLE)		Likened musical sounds to sighs and growls of frustration	
	Used different meters (MET-VAR-VARIABLE)		Said, "I'm very outspoken. If I don't like something, you'll find out"	
	Used rhythms that had manifested in previous pieces (RHY VAR-STABLE)			
	Changed volume noticeably (VOL VAR-VARIABLE)			
	Changed textures (TEX VAR-VARIABLE)			
	Did not establish clear tonality (MEL INT-OVER DIFFERENTIATED)			
d. William – guiro ("Sad")	Did not form relationship between playing and underlying pulse (RHY INT-OVERDIFFERENTIATED)		Used short scrapes to represent "not very sad or not showing sadness"	Used loud, long scrapes to communicate "I'm sad, leave me the hell alone"
	Made frequent and extensive modifications to the rate of playing (TEM VAR-CONTRASTING)		Said the rainstick represented tears.	Used soft scrapes to represent hiding his feelings from others
	Produced multiple timbres (TIM VAR-VARIABLE)		Stated that he sometimes becomes aggravated or annoyed with himself when he is sad because he doesn't understand why he is sad	Stated that he sometimes becomes aggravated or annoyed with others when he is sad because he doesn't understand why he is sad
	Used multiple textures (TEX VAR-VARIABLE)		Said he feels a mixture of feelings and that he responds to the one that is more serious	
	Varied volume greatly (VOL VAR-CONTRASTING)		Expressed that happiness was difficult for him to feel or convey	

4. Duet Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. William - alto metallophone Susan - bongos ("Blah")	Played one rhythmic theme in one meter throughout the piece (RHY VAR-STABLE, MET VAR-VARIABLE)	Initiated decrescendo at end (VOL AUT-LEADER)	Thought the piece sounded "pretty good"	
	Played one melodic		Said he was feeling	

	theme throughout the piece (MEL VAR-STABLE)		annoyed and so he created annoyed sounds	
		Did not integrate rhythms with my playing (RHY AUT-RESISTIVE)	Said, "I don't like the high notes"	
	Used inconsistent tempo (TEM VAR-VARIABLE)		Told me that he finds one rhythm that he likes, then uses it over and over again	
	Varied dynamics somewhat (VOL VAR-VARIABLE)		Said he enjoys the metallophone but prefers the bongos	

Appendix J

Musical and Verbal Data: Susan (William)

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
WILLIAM DID NOT PLAY ANY SOLO NONREFERENTIAL IMPROVISATIONS				
2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. William - cabasa Susan – doumbek	Used a variety of rhythmic figures (RHY VAR-VARIABLE)	Conformed to William's tempo (TEM AUT-FOLLOWER)	Was pleased that William was able to sustain rhythmic patterns	
	Varied the intensity level of my playing (VOL VAR-VARIABLE)	Borrowed his rhythmic motifs (RHY AUT-FOLLOWER)	Was impressed with his creative use of the cabasa, an instrument he had never played before	
		Imitated William's playing configurations (TEX AUT-FOLLOWER)	Noted that he appeared to have difficulty manipulating the instrument; he shifted it and grimaced	
			Noticed that he watched me while we played; believed he was responsive to my music and me	
			Thought the ending was lackluster compared to the beginning	
b. William – claves Susan – glockenspiel	Employed diverse playing configurations (TEX VAR-VARIABLE)	Deferred to William's tempi and changes therein (TEM AUT-FOLLOWER)		Tried to validate William's attempt at self/musical organization
	Used a variety of means to establish and maintain a clear tonality (MEL INT-UNDIFFERENTIA-TED)			Noted that William's rhythm provided a foundation for me
	Created an assortment of melodic figures (MEL VAR-VARIABLE)		Was feeling bored; disinterest prompted me to change what I was playing	
	Created an assortment of rhythmic figures (RHY VAR-VARIABLE)			
	Used two different			

	meters (MET VAR-VARIABLE)			
	Used a wide range of dynamics, both gradual and abrupt (VOL VAR-VARIABLE)			

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. William - bongos ("My Outspoken Personality")	Was struck by William's constant return to the dotted rhythm established at the beginning and found in other improvisations (RHY VAR-STABLE)		Tried to figure out how William's sounds related to his personality	
	Noticed William's fluid movement from duple to triple rhythm and back again (MET VAR-VARIABLE)		Expected more dynamic intensity and contrast; was prepared for loud playing with accents	
	Felt musical tension as a result of William's lack of consistent alignment with the pulse (RHY TEN-TENSE)		Anticipated less rhythmic structure	
			Was bothered by the tension in the piece	
			Was bothered by the drab ending	
b. William – agogo, rainstick, triangle, jinglestick, bongos ("A Part of My Personality That I Usually Keep Hidden")	Listened for established rhythmic figures in order to relax (RHY VAR-STABLE)	Felt agitated with William's use of multiple instruments (TEX TEN-TENSE)	Wondered if the attribute he was representing was agitation or disorganization	
			Wondered if playing in a predictable sequence was his attempt to portray a tendency to be methodical or to repeat activities	
			Did not perceive William's playing as intentional or focussed	
			Thought sequence appeared hurried and motoric rather than "musical"	
			Thought verbal	

			description reflected inattentiveness	
c. William – alto metallophone ("Annoyed")	Found lack of consistent pulse salient (RHY INT-DIFFERENTIATED)		Thought the rhythmic organization belied the referent	
	Found use of both familiar and new rhythmic motifs salient (RHY VAR-STABLE, RHY VAR-VARIABLE)		Was surprised that William's representation of "Annoyed" was not louder and more forceful	
	Noted William's change of playing configuration (TEX VAR-VARIABLE) and resulting change in timbre (TIM VAR-VARIABLE)		Sensed incongruity between what/how he played and how he described himself	
			Wondered why he passed over reflective listening of the piece	
				Wished I would have inquired about my confusions and curiosities
d. William – guiro ("Sad")	Found contrasts in tempo and volume most meaningful (TEM VAR-CONTRASTING, VOL VAR-RANDOM)		Experienced this improvisation as one of William's most authentic	
			Wondered if authenticity was related to improved rapport or the fact that he had chosen the referent	
			Thought that William approached the instrument with intent	
			Thought that his affect matched the character of his music	
				Mentioned to William that his face looked sad to me

a. William – alto metallophone Susan – bongos ("Blah")	Had difficulty orienting my playing around a pulse (RHY INT-DIFFERENTIATED)	Had difficulty organizing my rhythms to fit in with William's expressions (RHY AUT-FOLLOWER)		Experienced frustration until I figured out how to fit my rhythms within his established pattern
		Played in synchrony with William's rhythm (RHY INT-UNDIFFERENTIATE		Heard my own expressions as a demand of William's attention and

		D)		compliance with my beat
				Experienced satisfaction that we could relate musically within the same time frame

Appendix K

Analysis of Improvisations: Hayley

Solo Nonreferential

Improvisation #1a

Musical Description. This monothematic improvisation was 1 minute 30 seconds in duration. Hayley played the metal ganza with a metal striker. The piece is characterized by a wide variety of textures and timbres. Three different playing configurations were used: scraping, tapping, and shaking. Hayley created three different timbres by scraping across two different ridged surfaces and shaking the instrument.

Hayley did not establish a pulse. She created one rhythmic figure consisting of four repetitions of a slow scrape followed by three brisk scrapes. Tempo was highly variable throughout. Hayley played with variable volume, with both sudden and gradual changes.

Tension was created by the harsh timbre of the instrument when shaken at high intensity.

Hayley's Organization of the Musical Elements. Hayley played in a highly variable manner in this improvisation. She used several different playing configurations (TEX VAR-VARIABLE). She also created several different timbres on the instrument (TIM VAR-VARIABLE), one of which created a

high degree of tension when played loudly (VOL TEN-TENSE). Hayley's volume ranged from *pianissimo* to *fortissimo* (VOL VAR-VARIABLE). The tempo of her scrapes, taps, and shakes also fluctuated (TEM VAR-VARIABLE).

Hayley's Verbal Meanings. Hayley did not have much to say about this improvisation relative to the others. She stopped playing abruptly, soon after she had discovered a new timbre by scraping across the large ridges on the instrument. She immediately said, "OK, I'm done playing around with it" while laughing (INTRA-P). She described the experience as feeling "Weird, 'cause it sounds different" (INTRA-P). She shook the ganza sporadically while she spoke.

Hayley said that the instrument sounded like "a lot of beans" and that it reminded her of the rainstick (INTRA-P). She indicated that she enjoyed playing the ganza but did not elaborate (INTRA-P). During the session summary, Hayley titled this improvisation "Peer Pressure" because she associated the weird sound of the instrument with the awkwardness of being in a peer-pressure situation.

My Organization of the Musical Elements. While listening to Hayley, my attention was drawn to the various timbres and textures she produced on the ganza (TIM VAR-VARIABLE, TEX VAR-VARIABLE) and the wide range of dynamic

levels she employed (VOL VAR-VARIABLE). I was also struck by the tension created by the loud shaking in the middle of the piece (TEN VOL-TENSE)

My Verbal Meanings. I did not discuss my impressions of this piece with Hayley (INTER-P). My field notes for the session indicated that

> I was surprised to see Hayley play in such a creative way on the ganza. She tried all kinds of things that I never would have expected her to play, and she stuck with each idea for longer than I would have expected, too. There was a certain playfulness about what she did, as if she was a young child exploring a new toy. In a sense, her comment after the improvisation supports this image: "OK, I'm done playing around with it" (INTER-P).

Duet Nonreferential

Improvisation #2a

Musical Description. This was a monothematic improvisation of 1 minute and 30 seconds on two instruments. Hayley played the guiro and I played the bongos. The texture was two parts for each instrument: a scrape and a tap on the guiro and a scrape and a strike on the bongos.

Rhythmic grounding was highly variable in the first half of the piece. In the second half there was a shared pulse most of the time, and a consistent 6/8 meter was established and maintained until the end of the improvisation. Tempo was fairly stable, except for a

slight acceleration in the middle of the piece and a pronounced *ritardando* at the end.

The rhythmic figure that Hayley established was unchanging. There was high rhythmic variability in my playing.

Volume remained constant until the end, when both of us played a *decrescendo*. Tension was produced by the lack of rhythmic integration in the first half and the timbre of the scrape on the guiro.

Leadership alternated in this piece; Hayley initiated both changes in tempo and I established meter and initiated the *decrescendo* at the finale.

Hayley's Organization of the Musical Elements. Throughout the piece, Hayley seemed to find meaning in maintaining the rhythmic theme (scrape, tap-tap or scrape, tap-tap-tap) that she established at the beginning (RHY VAR-STABLE). Her theme did not waver, in spite of the rhythmic variability in my playing (RHY AUT-RESISTIVE). Ungrounded at first, Hayley's rhythmic configuration became more organized half way through the piece, aligning with the pulse (RHY INT-INTEGRATED) and falling more consistently within the meter that I maintained (MET AUT-FOLLOW).

Hayley did not change volume substantially in her playing (VOL VAR-STABLE). The most noticeable change in volume occurred at the very end when she became gradually quieter in response to my *decrescendo* (VOL AUT-FOLLOWER).

Hayley initiated both shifts in tempo that occurred (RHY AUT-LEADER, TEM VAR-VARIABLE). These were changes in different directions, with a slight but noticeable *accelerando* at the midpoint and an emphatic slowing to close the piece. Timbre was stable throughout (TIM VAR-STABLE).

Hayley's Verbal Meanings. Hayley laughed lightly at the end, seemingly in response to an unexpected ending. She talked about the experience of playing as being "weird" because it was new. She said, "It was different. Well, it wasn't a bad different, it was just something new...that I'm not used to." She said she did not feel uncomfortable (INTRA-P).

When I asked Hayley to identify what stood out for her in the playback of the improvisation, she focussed on the specific elements of volume and tempo. She thought it got louder in the middle but she didn't know who had initiated the change (INTER-P). She then stated, "You could tell yours got louder. And then when you weren't banging as much, you could tell that I was a little bit louder"

(INTER-P). Hayley identified that the ending was softer, and she believed that she had been the one to initiate the *decrescendo* (INTER-P). Finally, she noticed that the piece had slowed at the end, and she guessed that she had started this also and that I had followed (INTER-P). In summary, Hayley expressed her understanding of when and how the improvisation had embodied elements of tempo and volume and how she had not only manipulated these elements, but had been the leader in the changes (INTER-P).

My Organization of the Musical Elements. My playing was mostly integrated with the pulse (RHY INT-INTEGRATED), except when I was attempting to align a downbeat with Hayley's playing (RHY AUT-FOLLOWER) or when I was trying to effect change in her rhythmic pattern (RHY AUT-LEADER). I created many different rhythmic figures during the course of the improvisation (RHY VAR-VARIABLE), and all but one (scratching) were bound to 6/8 time. I slowed my playing in response to Hayley's *ritardando* (RHY AUT-FOLLOWER).

My volume was stable (VOL VAR-STABLE), except for the synchronous *decrescendo* I led at the close of the piece (VOL AUT-LEADER).

My timbre on the bongos was varied (TIM VAR-VARIABLE). The scratching pattern I used was motorically and timbrally

analogous to the scraping pattern Hayley used on the guiro (TIM INT-FUSED)

My Verbal Meanings. (The processing of this session was interrupted by a brief evacuation of the facility. Thus, I did not have an opportunity to process my response to the improvisation with Hayley. Comments here are thus restricted to my thoughts and feelings about the improvisational process.) I enjoyed playing the bongos in this piece (INTRA-P). I believe that I produced some interesting rhythms on them (INTRA-P) and I was invigorated by the challenge of following Hayley in the beginning when the pulse was not firmly established (INTER-P).

For me, one significant moment in this piece was when Hayley and I synchronized on the two taps of her rhythmic figure (INTER-P). Up until that point, I was concentrating so diligently on maintaining meter that I was unable to enjoy the music-making (INTRA-P). Once Hayley and I rallied around a consistent pulse, I felt myself relax (INTRA-P) and began to listen to the combined voices (INTER-P).

I took pleasure in the *ritardando* in the final moments. It was gradual and synchronized, and this provided satisfying closure to the piece (INTER-P).

Improvisation #2b

Musical Description. This co-improvisation on the alto metallophone was 3 minutes and 10 sections in duration. It had three main sections. The first and second were delineated by a change in tempo and rhythmic figure, and the second and third were separated by a change in texture (solo-accompaniment) and tonality. In that we were sharing one instrument, one timbre was represented throughout.

In Section 1, Hayley played a series of subdivisions on three adjacent notes in the lowest range of the instrument which were not integrated with a pulse. I played scalar passages on the high notes, also arrhythmic. There was no tonal center. Volume remained constant at a *pianissimo* level except for a series of repeated, accented *forte* notes that I played and a synchronous *crescendo* on another repeated note. At the close of Section 1, I introduced a dotted rhythmic pattern in duple meter. Tension was produced by the lack of rhythmic integration at the start and the unexpected accented notes.

Section 2 was characterized by a slowing from the previous segment along with increasing rhythmic integration with the pulse and between players. Hayley introduced a simple rhythmic motif in duple meter that became the basis

for this section. As in Section 1, there was no tonal center. Volume was unchanging at *forte*.

In Section 3, Hayley played a solo over my accompaniment. These two parts were rhythmically integrated for most of this section. The solo was comprised of subdivisions, played in the middle and upper ranges of the instrument and organized into phrases of consistent length that were separated by an eighth rest. Hayley used intervals of seconds, thirds, and fourths. The solo was tonally differentiated from the accompaniment, an ostinato that was centered on F and C and played harmonically for a few repetitions, then melodically until the end of the piece. Dynamic levels were fused and largely unchanging at *mezzo-piano*. Two configurations were represented, single strikes and *glissandi*.

Hayley determined the tempo and rhythmic figure for Section 2. I led the changes in volume, initiating the *crescendo* in Section 1, the *forte* dynamic level in Section 2, and the *decrescendo* at the conclusion of the piece.

Hayley's Organization of the Musical Elements. Rhythmic grounding and integration of Hayley's playing changed as this piece unfolded. Initially, she did not play with a discernable pulse and did not integrate with mine (RHY INT-OVERDIFFERENTIATED, RHY AUT-RESISTIVE). As

she moved through the second and final segments, her playing became more rhythmically organized and connected (RHY INT-INTEGRATED). There was no variability in her rhythmic playing, as she used subdivisions from beginning to end (RHY VAR-RIGID). She both responded to the manner in which I used the rhythmic elements (fusing with the underlying pulse provided by the ostinato) (RHY INT-FUSED, RHY AUT-FOLLOWER) and initiated her own modifications (creation of a new rhythmic figure and accompanying change of tempo at Section 2) (TEM AUT-LEADER).

Although Hayley did not play according to a tonal center, per se, there were fleeting moments of tonal alliance with the ostinato accompaniment in the final section (MEL INT-DIFFERENTIATED). She began the piece with a narrow range of notes in a pattern that she had used in previous improvisations. At the conclusion of the improvisation, her melodic statements expanded to include sequences and intervals greater than those she had played in the past. Her repeated notes, less than 30 seconds into the piece, were not only a departure from her personal repertoire, but from the established character of the music (MEL VAR-VARIABLE).

Hayley created tremolos on the interval of a third, which she had not previously done (TEX VAR-VARIABLE).

Hayley's volume levels blended and coincided with mine (VOL INT-FUSED). She followed my changes in dynamics, including the *crescendo* in Section 1 and the *decrescendo* at the finale (VOL AUT-FOLLOWER).

Hayley's Verbal Meanings. Once the improvisation ended, I asked Hayley if there had been any differences between the experience of playing by herself and that of playing on the instrument with someone else (INTER-P). She responded that there had been "more sound" and different pitches. When asked more specifically if it had felt different to play alone versus together, Hayley said that it had not (INTER-P).

As I shared my perception of the musical changes and how these had contributed to my sense of connectedness in the improvisation (see below), Hayley responded that she had felt similarly (INTER-P). (At this point, Hayley suddenly picked up a different set of mallets and began playing the metallophone in earnest once again. I did not interrupt her to redirect the conversation. When she was finished, she began talking about the various mallets and the different sounds they produce, and we did not return to discussing the previous co-improvisation. At the end of the session, however, Hayley recalled this particular piece

as one of her two favorites because, "we connected at the end" [INTER-P].)

My Organization of the Musical Elements. In the beginning, my music lacked a pulse (RHY INT-OVERDIFFERENTIATED). With the introduction of the dotted rhythmic figure in Section 1, I became grounded in pulse, tempo, and meter (RHY INT-INTEGRATED). I used a variety of rhythmic figures throughout the piece, but most of these were oriented around subdivisions of the pulse (RHY VAR-VARIABLE). I followed Hayley's lead into a slower tempo at the start of Section 2 and at the end of the piece (RHY AUT-FOLLOWER).

My playing started out tonally ungrounded (MEL INT-OVERDIFFERENTIATED) but became increasingly grounded as the piece evolved (MEL INT-INTEGRATION). I used a variety of melodic patterns (MEL VAR-VARIABLE).

At one point, I was playing a series of melodic figures centered on F, and when I began the ostinato on F-C and G-C, I was squarely in that key, as reinforced by the tonic-dominant relationship and movement from the second scale degree to the tonic (HAR INT-UNDIFFERENTIATED).

My volume varied and included both sudden, drastic changes (accented, repeated notes) and predictable, gradual

changes (*crescendi* and *decrescendi*) (VOL VAR-VARIABLE). There was no change in timbre (TIM VAR-STABLE).

My Verbal Meanings. This was one of the most meaningful improvisations that I shared with Hayley. My suggestion to share an instrument -- to speak with one voice -- was an expression of a desire for intimacy (INTER-P). When Hayley embraced my offer, I immediately felt excitement and eagerness (INTRA-P), as well as a sense of responsibility to play in a way that would not alienate us from one another but that would bring us closer (INTER-P).

There was a sense of satisfaction and closeness when we responded to each other's musical invitations, such as when she followed my dynamics or when I followed her *ritardando* (INTER-P).

Once I settled into the ostinato, I could listen more closely to what Hayley was playing and how our expressions fit together (INTER-P). Although I could not be sure, there were moments when it sounded as though she was trying to find and play in the tonality of the ostinato. She organized her playing with melodic sequences and clear phrasing, and this contributed to the cohesive sound (INTER-P). We were both playing softly, and the overall complexion of the music was more tender and beautiful to me

than any we had co-constructed in previous improvisations (INTRA-P, INTER-P).

As soon as this improvisation ended, I sighed out loud and shared my impression of our music:

> Susan: At the end, um...there was a period of time when it sounded like we were really clicking together. Did you hear it?
> Hayley: Hmm-mm, when we were going, like, soft. [She plays a remnant from the final moments of the improvisation]
> Susan: We were both soft and we were kind of on the same beat.
> Hayley: Yeah, that one.
> Susan: Hmm?
> Hayley: I said, that one beat.
> Susan: Hm-mm. It seemed to change the whole character of the music. 'Cause before we were just kind of all over the place, and then once we settled into that pattern, for me anyway, I felt something different happen. It was like, "OK, now we're really making some music together." It was like there was some communication starting between us (INTER-P).

To me, not only had the character of the music taken a turn at the end of the improvisation -- it sounded more "musical" (INTRA-P)-- but my perception of our intermusical relationship had changed as well (INTER-P). I viewed our decision to share pulse, tempo, meter, and dynamics as a communicative act (INTER-P).

Solo Referential

Improvisation #3a

Musical Description. This improvisation was 55 seconds in duration and was based on the referent

"Sadness." Hayley played the tubano. There was one timbre and one texture represented throughout.

The entire piece was built upon a series of phrases of irregular length consisting of subdivisions on the rim (produced by alternating R-L strikes) followed by an accented strike in the middle of the drumhead. This theme continued without variation and coincided with a pulse only occasionally.

Tempo was moderate and stable, as was overall volume at *forte*. The piece ended suddenly on the rim, prior to the accented strike. Hayley created tension in the lack of rhythmic integration, the unevenness of the phrase length, and the abrupt ending.

Hayley's Organization of the Musical Elements. Hayley created a cyclical rhythmic theme that did not vary significantly over the course of the improvisation (RHY VAR-RIGID). She did not relate this theme to a ground with any consistency (RHY INT-DIFFERENTIATED). Her phrase length was highly variable (PHR VAR-VARIABLE). Volume did not change noticeably (VOL VAR-STABLE), nor did timbre (TIM VAR-STABLE).

Hayley's Verbal Meanings. When asked to describe the improvisation immediately after playing, Hayley said, "I don't know, I think it represented anger too" (INTRA-P).

Her perception was that the sadness was reflected in what she called the "softer sounds" (strikes on the rim) and the anger in the loud strikes in the center of the drum. During the playback, Hayley said, "I think it sounds more like anger than sadness" (INTRA-P).

When asked if the piece sounded as she thought it would, she replied that it did not. She described the difference by saying, "I thought it'd sound worse 'cause I don't play any instrument at all. I guess I'm not giving myself credit" (INTRA-P). She indicated that she had been worried about how the improvisation was going to sound (INTRA-P).

When asked if anything else stood out in her piece, Hayley responded that the experience was like life. She stated, "Like, you start out and you're kind of curious about everything and then you, like, you go through life and then you die. It's like you're born and then you die" (INTRA-P). She went on to explain that the source of the sadness and anger that she was feeling and representing was the recent accidental shooting death of a friend.

My Organization of the Musical Elements. As I listened to Hayley play, my attention was focussed on her use of subdivisions and volume and the cyclical manner in which they created and released tension. The erratic

placement and number of subdivisions leading up to the strike served to accumulate tension, and the accented strike itself at the end of each phrase served to release it somewhat (RHY/VOL TEN-CYCLIC). However, because each phrase began immediately after the previous without pause, there was never an overall feeling of tension resolution. The incomplete cycle at the end of the piece contributed to its unresolved nature.

My Verbal Meanings. I did not talk about my personal reactions to this improvisation with Hayley (INTER-P). I heard neither sadness nor anger represented in her playing (INTRA-P). Rather, Hayley's music produced in me a sense of unpleasant tension (INTRA-P).

Improvisation #3b

Musical Description. This was a referential improvisation called "My Inside and My Outside." The piece was 2 minutes and 10 sections in duration and was made up of two distinct sections. Hayley played the alto metallophone (Lydian mode) with rubber-headed mallets. One timbre was used. Two configurations were created: single strikes on the bars and *glissandi* across the bars. Two registers were also used: low and high.

Section 1 consisted of continuous subdivisions of adjacent notes, ascending and descending, with a range of 3

to 5 pitches. Hayley played this pattern in Aolian mode on A. No harmony was used. Subdivisions mostly aligned with the pulse. Volume was steady at *mezzo-piano.* Tempo was also stable.

Section 2 was identical in structure and style to Section 1, except that Hayley played slightly louder (*mezzo-forte*) and in the upper range of the instrument.

Quick *glissandi,* one ascending and one descending, occurred between the two sections and at the end of the piece.

Hayley's Organization of the Musical Elements. Hayley created an apparent and fixed musical form (A-B-A'-B), with Section 1 (A) and Section 2 (A') clearly differentiated not only by a noticeable variation in intensity (VOL VAR-VARIABLE), but by her change in register and *glissandi* (B)(TEX VAR-VARIABLE). Although Hayley grounded the tonal material in a specific mode (MEL INT-FUSED), she did not develop cohesive melodies, nor did she significantly vary the stepwise melodic configurations used throughout the piece (MEL VAR-STABLE). Her subdivisions coincided with the pulse more often than not (RHY INT-FUSED). She did not create changes in tempo (TEM VAR-STABLE).

Hayley's Verbal Meanings. When she had finished, Hayley let out a big sigh and said, OK" almost inaudibly

(INTRA-P). With prompting, she described the representation meaning of this piece as follows.

> The softer side is like your outside 'cause you, like, put on a show, I guess. Some people do. And then the louder part, this is what is going on inside. And then I did the little thing [*glissando*] to separate them (INTRA-P, INTER-P).

The discussion continued:

> Susan: Say more about what you did on the outside part. You said it was soft and that's the part you show to the world (INTER-P)?
> Hayley: Yeah.
> Susan: OK. What did you do? How did you play your outside (INTER-P)?
> Hayley: Softer. And I did this little, like, pattern.
> Susan: Did that pattern have any meaning?
> Hayley: Uh, no. I just did four. I divided it into four. And then I did the same up here.
> Susan: You did the same pattern up here.
> Hayley: Yeah, but I hit it a little harder.
> Susan: OK. Why did you hit it a little harder?
> Hayley: 'Cause it represented the inside (INTRA-P).
> Susan: And what did the harder hit mean//
> Hayley: //It means//
> Susan: //for you and what does that say about your inside (INTRA-P)?
> Hayley: Hurt inside (INTRA-P).

Hayley continued to say that she was hurting inside right then (INTRA-P) but that she was showing the world "everything's OK, more or less" (INTER-P). In this regard, the improvisation was taken as a representation not only of the assigned referent, but of her emotional state in that moment (INTRA-P).

My Organization of the Musical Elements. While listening and watching, I was drawn to three aspects of Hayley's improvisation. First, there was the "narrow" and repetitive nature of her melodic constructions (MEL VAR-STABLE). Next, there was the relative stability of the subdivisions (RHY INT-FUSED). Finally, I noticed the contrast between the harsh sound (and movement) of the *glissandi* and the slower, legato character (and movement) of the stepwise melodic configurations (TEX VAR-VARIABLE).

My Verbal Meanings. This piece sounded "logical" to me. I could discern that Hayley was using a specific form in order to represent the two dimensions of herself, although I could not discern which section, the low or the high, was meant to represent which aspect.

I was startled by the *glissandi* -- they seemed to come from nowhere. I was pleasantly surprised by the rhythmicity of Hayley's playing and by her use of a tonal center (INTER-P).

Duet Referential

Improvisation #4a

Musical Description. This monothematic improvisation was 1 minute and 25 seconds in duration and was based on the referent, "A Conversation With Josh." (Josh was a friend of Hayley's who had died an accidental death the

weekend before the session.) Hayley improvised as herself on the tubano. She selected the doumbek for me to play as Josh. Although two drums were used, the timbres were nearly similar. The texture was three parts: distinct strikes on each of the two drums, and sustained tremolos on the doumbek.

This piece is characterized by a series of random, antiphonal accents, undergirded by Hayley's quick and continuous strikes (L-R) on the rim and my tremolos. There was no rhythmic ground, and no distinguishable rhythmic figures were created.

Hayley established a *piano* volume level in the very beginning of the piece; after the first accent, the intensity climbed suddenly to *forte* and remained stable to the end.

Tension was created in the lack of rhythmic ground and the erratic accents. For the most part, I established the placement of the accents and Hayley responded by echoing. At certain times, however, these irregular beats were exchanged back and forth.

Hayley's Organization of the Musical Elements. The timbre of Hayley's chosen drum was nearly identical to mine, which she also selected (TIM INT-FUSED). From the beginning, Hayley constructed a cyclical pattern consisting

of quick, uneven strikes on the rim followed by an accented beat in the middle of the drum (similar to Solo Referential #1). This pattern did not vary (RHY VAR-STABLE), although the number of strikes and subsequent placement of the accent (thus, the length of the phrase) changed (PHR VAR-VARIABLE) in response to my playing and at Hayley's own initiative (PHR AUT-PARTNER). Her rhythmic expressions were neither integrated with a pulse nor with my playing (RHY INT-OVERDIFFERENTIATED). Her volume changed immediately after I introduced the first accent (VOL AUT-FOLLOWER).

Hayley's Verbal Meanings. Hayley laughed heartily immediately following the improvisation and said, "That was different." When asked what 'different' meant, she said, "Ah, a good different. Let's see. It got out my anger" (INTRA-P). Upon further prompting, Hayley explained that hitting the drum hard felt good (INTRA-P).

During the playback of this piece, I asked Hayley how she felt when I played the first accent in the midst of the quiet subdivisions in the very beginning (INTER-P). She laughed again and replied that it seemed like Josh had come back, just for a day, and that the two of them had begun to talk (INTER-P). As the accented beats continued, Hayley said, "I'm telling him that I'm mad for what he did and

that I'll miss him…" She thought Josh's response was that he would miss her too (INTER-P). When she heard the antiphonal playing at the end, Hayley said that it sounded like both she and Josh were expressing their regret that his death had occurred (INTER-P).

In response to my question about the laughter at the end of the improvisation, Hayley yawned and said, "I don't know. Just, it sounded weird. And then at the end it was sort of like 'goodbye' again with a louder hit." Asked again what the laughter meant, Hayley answered that she "got it out," meaning that she had expressed her feelings (INTRA-P). She then said, isn't that what you're supposed to do, in a way?"

My Organization of the Musical Elements. My playing was not grounded (RHY INT-OVERDIFFERENTIATED). My volume was mostly stable throughout (VOL VAR-STABLE).

My Verbal Meanings. It was exciting to play in a vigorous exchange with Hayley (INTER-P). It felt as though our playing was coming from a place of immediacy and that, as a result, neither one of us knew what was going to happen next (INTER-P). The piece ended "cleanly" but too suddenly for me to feel musically satisfied (INTRA-P).

Appendix L

Musical and Verbal Data: Hayley

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Hayley - ganza	Used several different playing configurations (TEX VAR-VARIABLE)		Viewed improvisation as "playing around" with the instrument	
	Created several different timbres (TIM VAR-VARIABLE)		Expressed that she enjoyed playing the experience	
	Created a high degree of tension with volume (VOL TEN-TENSE)		Said the experience felt "weird"	
	Used wide dynamic range, *pp* to *ff* (VOL VAR-VARIABLE)			
	Fluctuated her tempo (TEM VAR-VARIABLE)			
2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Hayley - guiro Susan - bongos	Maintained rhythmic theme (RHY VAR-STABLE)	Did not respond to my rhythmic variability (RHY AUT-RESISTIVE)	Experienced improvisation as weird because it was new	Stated she did not know who had initiated changes in volume in middle; believed she initiated changes in volume at the end
	Rhythmic figure became more organized and aligned with pulse over time (RHY INT-INTEGRATED)	Rhythmic figure became more aligned with my established meter (RHY AUT-FOLLOWER)	Did not feel uncomfortable	Believed she initiated *decrescendo*
	Did not initiate changes in volume (VOL VAR-STABLE)	Became quieter in response to my decrescendo (VOL AUT-FOLLOWER)		Believed that she had initiated the *ritardando* at the end
		Initiated two changes in tempo (RHY AUT-LEADER, TEM VAR-VARIABLE)		
	Timbre remained stable throughout (TIM VAR-VARIABLE)			
b. Hayley - alto	Did not play with discernable pulse	Did not integrate with my pulse		Duet sounded different but did not feel

metallophone Susan - alto metallophone	(RHY INT-DIFFERENTIATED)	(RHY AUT-RESISTIVE)		different from solo experience
	Playing became more rhythmically organized in second half (RHY INT-INTEGRATED)	Fused with the pulse of my ostinato (RHY AUT-FOLLOWER)		Felt connection through shared pulse
	Used subdivisions from beginning to end (RHY VAR-STABLE)			Chose duet as favorite because "we connected at the end"
		Initiated new rhythmic figure (RHY AUT-LEADER)		
		Initiated change in tempo (TEM AUT-LEADER)		
	Did not play according to tonal center established by ostinato (MEL INT-DIFFERENTIATED)			
	Expanded melodic statements to include sequence and larger intervals (MEL VAR-VARIABLE)			
	Added tremolos on interval of third (TEX VAR-VARIABLE)			
		Coincided and blended volume with mine (VOL INT-FUSED)		
		Followed my changes in dynamics (VOL AUT-FOLLOWER)		

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Hayley - tubano ("Sadness")	Created cyclical theme that did not vary (RHY VAR-STABLE)		Was worried about how the improvisation was going to sound	
	Did not relate theme to a ground (RHY INT-DIFFERENTIATED)		Believed the piece would sound worse than it did; was not "giving self credit"	
	Used varying phrase lengths (PHR VAR-VARIABLE)		Thought improvisation was like life: "You're born and then you die"	
	Did not alter volume noticeably (VOL VAR-STABLE)		Stated that the piece represented both sadness and anger, more anger	
	Did not alter timbre noticeably (TIM		Sadness was reflected in soft sounds/anger	

	VAR-STABLE)		was reflected in loud sounds	
b. Hayley - alto metallophone ("My Inside and My Outside")	Created noticeable changes in intensity (VOL VAR-VARIABLE)		Harder hit (increased volume) represented hurt on inside	Thought the softer sound was like the outside – putting on a show for others
	Changed registers (TEX VAR-VARIABLE)			
	Grounded melody in mode (MEL INT-FUSED)			
	Did not vary melodic configurations (MEL VAR-STABLE)			
	Subdivisions coincided with pulse more often than not (RHY INT-FUSED)			
	Did not vary volume (VOL VAR-STABLE)			

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
a. Hayley - tubano Susan - doumbek ("Conversation with Josh")		Selected identical timbres for each player (TIM INT-FUSED)	Said the experience was "different"	Said it seemed like Josh had come back and was conversing with her about feelings of anger, loneliness, regret
	Did not vary rhythmic pattern (RHY VAR-STABLE)		Believed that playing "got out" her anger	
	Varied length of phrase (PHR VAR-VARIABLE)	Varied length of phrase in response to my playing (PHR AUT-FOLLOWER)	Said that hitting the drum hard felt good	
	Did not integrate rhythmic expressions with pulse (RHY INT-DIFFERENTIATED)	Did not integrate rhythmic expressions with my pulse (RHY AUT-RESISTIVE)		

Appendix M

Musical and Verbal Data: Susan (Hayley)

	INTRAMUSICAL (Not Verbalized)	INTERMUSICAL (Not Verbalized)	INTRAPERSONAL (Verbalized)	INTERPERSONAL (Verbalized)
1. Solo Nonreferential				
a. Hayley - ganza	Was drawn to the various textures and timbres she produced (TIM VAR-VARIABLE, TEX VAR-VARIABLE)		Was surprised by creativity of her playing	
	Attended to wide range of dynamic levels (VOL VAR-VARIABLE)		Noticed she stuck with the music longer than I thought she would	
	Was struck by tension created by loud shaking of instrument (VOL TEN-TENSE)		Perceived a sense of playfulness, like a child exploring a toy	
				Did not discuss impressions of this piece with Hayley
2. Duet Nonreferential				
a. Hayley - guiro Susan - bongos	Integrated my playing with a pulse most of the time (RHY INT-INTEGRATED)	Attempted to align downbeat with Hayley's playing (RHY AUT-FOLLOWER)	Enjoyed playing the bongos	Identified significant moment when we synchronized rhythmically
		Attempted to effect change in her rhythmic pattern (RHY AUT-LEADER)	Believed I produced some interesting rhythms on the drum	Began to listen to combined voices, once relaxed
	Created many different rhythmic figures (RHY VAR-VARIABLE)	Slowed my playing in response to her *ritardando* (TEM AUT-FOLLOWER)	Felt invigorated by challenge of following her	Took pleasure in synchrony of *ritardando* at end of piece
	Played with consistent volume (VOL VAR-STABLE) except for ending	Led synchronous *decrescendo* at end (VOL AUT-LEADER)	Could not enjoy music-making because I was concentrating on meter	
	Used varied timbre (TIM VAR-VARIABLE)		Felt myself relax in response to consistent, shared pulse	
	Fused timbre with Hayley's (TIM INT-FUSED)			
b. Hayley - alto metallophone	Played without pulse in beginning (RHY INT-	Followed Hayley's lead into a slower tempo (TEM AUT-	Felt excited and eager to play	Expressed desire for intimacy through shared instrument

Susan - alto metallophone	OVERDIFFERENTIATED)	FOLLOWER)		
	Became grounded in pulse, tempo, and meter (RHY INT-INTEGRATION)		Experienced tenderness and beauty in soft, integrated sounds	Perceived this as one of the most meaningful improvisations with her
	Used a variety of rhythmic figures throughout the piece (RHY VAR-VARIABLE)			Felt sense of responsibility to create intimacy
	Played without tonal ground first (MEL INT-OVERDIFFERENTIATED); Became increasingly grounded (MEL INT-UNDIFFERENTI-ATED)			Experienced sense of satisfaction when responding to each other's musical expressions
	Used a variety of melodic patterns (MEL VAR-VARIABLE)			Noticed that ostinato provided respite so that I could listen to shared expressions
	Grounded ostinato in key of F (HAR INT-FUSED)			Thought her organized sounds contributed to cohesive sound
	Varied volume both suddenly and gradually (VOL VAR-VARIABLE)			Experienced tenderness and beauty in soft, integrated sounds
	Did not change timbre (TIM VAR-STABLE)			Believed that we were communicating once we settled into a pulse and rhythmic pattern
				Viewed decision to share pulse, tempo, meter, etc. as communicative act

a. Hayley - tubano ("Sadness")	Focussed attention on her use of subdivisions and volume and the cyclical way tension was produced (RHY/VOL TEN-CYCLIC)		Heard neither anger nor sadness represented in her playing	Did not talk about my personal reactions to this improvisation with Hayley
			Thought her music produced in me a sense of unpleasant tension	
b. Hayley - alto metallophone ("My Inside and My Outside")	Noticed narrow, repetitive nature of melodic themes (MEL VAR-STABLE)		Thought the piece sounded "logical"	Could discern Hayley's use of musical form, though did not know what high and low ranges represented

	Noticed fusion of subdivision to pulse (RHY INT-FUSED)		Was startled by *glissandi*	
	Was aware of contrast between harshness of *glissandi* and legato character or melodic configurations (TEX VAR-VARIABLE)		Was pleasantly surprised by rhythmicity of Hayley's playing and her use of tonal center	

4. Duet Referential				
a. Hayley - tubano Susan - doumbek ("Conversation With Josh")	Did not form rhythmic ground (RHY INT-OVERDIFFEREN-TIATED)		Felt unsatisfied with abrupt ending	Felt excited to play in vigorous musical exchange with her
	Maintained steady volume (VOL VAR-STABLE)			Felt our playing seemed to possess a sense of immediacy
				Felt as though neither one of us knew what would happen next

Appendix N

Analysis of Improvisations: Chrissy

Solo Nonreferential

Improvisation #1a

Musical Description. This was the only solo nonreferential improvisation that Chrissy played. She constructed this piece on the alto metallophone with rubber-headed mallets. It was 1 minute in duration.

Chrissy played single, even strikes in a slow tempo. Melodic material consisted of steps, small leaps, and repeated notes. There was no steady tonal center, although Chrissy returned to A frequently and outlined an A-minor triad twice during the piece. She held volume constant at *mezzo-forte*. Tempo varied, with a slight increase at the midpoint and a noticeable decrease paired with a series of subdivided, repeated notes near the end of the improvisation. There was no tension in this piece.

Chrissy's Organization of the Musical Elements. There was a simplicity and calmness to this improvisation, in that Chrissy played in a slow and steady manner and made no significant or abrupt changes to any of the musical elements she employed, including timbre (TIM VAR-RIGID), texture (TEX VAR-RIGID), tempo (TEM VAR-STABLE), and intensity (VOL VAR-RIGID). She used pulse and simple

subdivisions exclusively (RHY VAR-STABLE) and used slow, evenly paced strikes unlike the syncopated rhythmic themes that had come to typify her other improvisations (RHY TENSE-CALM). Finally, because she did not develop melodic figures in a specific tonality, there was an absence of melodic tension (MEL TEN-HYPOTENSE).

Chrissy's Verbal Meanings. Initially, Chrissy refused to play, saying, "No, I don't know how to," and "I forget how we used to, you know, I forget how to play, like, a beat..." (INTRA-P). (She was referring to a pattern that she had learned in school on a similar instrument when she was a younger child.) With some encouragement, she agreed to improvise by herself. As soon as Chrissy finished playing, we were interrupted by a staff member at the door and thus did not have the opportunity to verbally process the experience. However, after receiving brief applause by the staff member and a word of praise from me, Chrissy smiled broadly and said, "That's cool. I like that" (INTRA-P).

My Organization of the Musical Elements. I was struck by the lack of melodic and rhythmic tension in this piece (MEL TEN-HYPOTENSE, RHY TEN-CALM). I also noticed the unwavering volume (VOL VAR-RIGID).

My Verbal Meanings. There was little of musical interest in this piece, yet I appreciated the homeostasis embodied within it. Its mild character stood in contrast to most of Hayley's previous improvisations, which had been highly rhythmic and tense (INTRA-P). I also appreciated that Chrissy played the metallophone in spite of her wavering confidence to do so (INTRA-P).

Duet Nonreferential

Improvisation #2a

Musical Description. This was Chrissy's second attempt at her first improvisation with me. In the first trial, she played two distinct rhythmic patterns for 20 seconds, then stopped and declared, "I quit." She was willing to try again immediately, however, and played the 4-minute improvisation as described below.

This piece was comprised of various sections defined by timbre change. Chrissy began playing the djembe, then added and switched instruments as the piece unfolded. I began with the tambourine and also switched instruments. In all, Chrissy played the djembe, tubano, and handdrum and I selected the tambourine, doumbek, and cabasa.

Section 1 commenced with Chrissy's clearly formed rhythmic figures, two distinct dotted and syncopated motifs in duple meter. This rhythm was integrated with the pulse

most of the time. I played pulse and subdivisions on the tambourine, using "half-note" tremolos (shakes) and strikes on the head. Volume was stable at *forte*. Tempo was moderate and unchanging.

Chrissy added strikes on the tubano in Section 2. She began in a rhythmic fashion, then played a series of random strikes and tremolos of unequal length and placement. I imitated her playing configuration and provided a pulse each time she returned to rhythmic playing.

The next segment occurred when Chrissy introduced a third distinct and highly-syncopated rhythm. I moved to the doumbek and played pulse, subdivision, and simple duple rhythms. There was a brief period of rhythmic disintegration and then a clear return to Chrissy's first rhythmic theme in the same tempo. Volume continued at *forte*.

Chrissy switched to the handdrum and djembe for Section 4. I continued on the doumbek. This section resembled the one before in that we began playing in a rhythmic fashion, lost the beat, then returned to metered playing. There was a period of fusion during which we both played subdivisions. I used accents to define a brief period of 6/8 meter, after which Chrissy returned to her initial dotted rhythm in a slightly quicker tempo. I

exchanged the doumbek for the cabasa and tapped the pulse for a few measures until Chrissy ended the piece with random strikes. Volume remained steady at *forte*.

Chrissy took the lead in this improvisation, determining the beginning, ending, initial tempo, volume, phrase length, and textural changes. Tension in the piece was most evident during periods of rhythmic disintegration.

Chrissy's Organization of the Musical Elements. Chrissy used various musical "voices." She explored four different timbres, singularly and in combination (TIM VAR-VARIABLE).

Most obvious in this piece was Chrissy's recurrent use of one particular syncopated rhythmic theme. She introduced this figure in the beginning of the piece and it appeared in each of the three remaining sections. This theme was firmly fused to the pulse (RHY INT-FUSED). There were, however periodic intervals of disintegration (RHY INT-DIFFERENTIATED) throughout the improvisation. Often times, when Chrissy's playing fell away from the pulse, she would create a tremolo that led back into her rhythmic theme.

There were no discernable changes in the intensity of Chrissy's playing (VOL VAR-STABLE), nor were there significant modifications of tempo (TEM VAR-STABLE).

Chrissy's Verbal Meanings. When asked what it was like to improvise, Chrissy responded that it was fun and that she had enjoyed it (INRA-P). She mentioned that she wanted to play the drums some day, meaning the drum set. I asked her how she felt when she played the drums, and her response was "good." With more probing, Chrissy explained that "good" meant "I feel happy and excited" (INTRA-P).

My Organization of the Musical Elements. I deferred leadership of this first improvisation to Chrissy (RHY AUT-FOLLOWER, TEM AUT-FOLLOWER, VOL AUT-FOLLOWER, TEX AUT-FOLLOWER). I did initiate a change in meter from 4/4 to 6/8 time, although this shift was quickly defeated by Chrissy's restatement of her rhythmic theme.

During much of this improvisation, I functioned to provide a ground for Chrissy's syncopated figures by maintaining the pulse. I also kept a beat going while she was in transition from one instrument to the next.

My Verbal Meanings. Because this was Chrissy's first improvisation, and because she had had a "failed" first attempt, my primary intent was to accommodate her playing as it evolved, as well as validate her musical expressions (INTER-P). I therefore let her assume leadership and, when it seemed like it would promote her exploration and expression, I provided stability (INTER-P). I was pleased

to learn that Chrissy was capable of initiating, imitating, and sustaining discrete rhythmic patterns (INTRA-P), capabilities that other participants had not yet demonstrated.

Improvisation #2b

Musical Description. This improvisation was 1 minute and 30 seconds in duration. Chrissy chose the bongos with mallets, and I selected the alto metallophone. She requested that I begin the piece.

This duet was distinguished by three salient features. The first aspect was its formal structure, which can be described as A-B-A′ with an introduction. The second was the clear tonal orientation in Dorian mode. The final predominant feature was the role relationship between Chrissy and me; I led the improvisation and Chrissy followed, with attempts to synchronize with the rhythms embedded in my melodies.

The introduction consisted of single, random notes, tremolos, and melodic foreshadowing. The A section was defined by clearly-developed and consistent melodic phrases in Dorian mode and triple meter. The B section was made up of scalar passages and repeated notes in a rubato style. A′ represented a return to the rhythmic and melodic content

of the first section, with minor changes in melodic construction.

Tempo varied, with rubato playing and *ritardandi*, which occurred at the ends of the introduction and each subsequent section. Volume remained constant at *mezzo-forte*.

Chrissy's Organization of the Musical Elements. Chrissy took a completely dependent role in this improvisation. She continually attempted to synchronize with my rhythmic figures and playing configurations throughout the piece (RHY AUT-DEPENDENT, TEX AUT-DEPENDENT). Her volume did not change (VOL VAR-RIGID).

Chrissy's Verbal Meanings. Chrissy was more talkative about this improvisation than most. As soon as we ended, she expressed how difficult the experience had been for her:

> Susan: What was that like for you?
> Chrissy: Hard!
> Susan: Hard? Say more, why was it hard?
> Chrissy: 'Cause I was trying to follow you and you were using different ones [rhythms]. And I was trying to follow your beat but I couldn't.
> Susan: What do you mean by "follow?"
> Chrissy: I was trying to follow, like, the kind of beat you was playing [taps beat on bongos].
> Susan: Follow, like do it after me? Or follow, like do it at the same time?
> Chrissy: Like, sort of like when you did it.
> Susan: At the same time? [Chrissy nods] And so, what made it hard, that I changed it up?

> Chrissy: Yeah, and there was different sounds and I couldn't, like, get the different sounds and stuff.
> Susan: Oh, you mean because this is a melody instrument and that's a rhythm instrument? [Chrissy nods] They're two different kinds of voices. So it was hard (INTER-P).

As we continued the conversation, Chrissy revealed that she had been thinking, "She's going too fast, I can't do this, this sounds awful" (INTER-P) and that as a result, she was "kind of scared" that she was going to "mess up" (INTER-P).

As we listened to the recording, I asked Chrissy why she chose to copy my exact rhythms in this improvisation rather than playing her own beat as she had done in the past, and she answered that she did not know (INTRA-P). She said she could hear that as I got softer she got softer, and that as I got louder she increased her volume. In closing, when I asked Chrissy how it felt to play or hear this improvisation, she said she liked how it sounded but then reiterated that it was scary because she could not play the same rhythm that I had played (INTER-P).

My Organization of the Musical Elements. I took the lead in this improvisation from beginning to end, determining all rhythmic aspects of the duet (TEM AUT-LEADER, RHY AUT-LEADER, MET AUT-LEADER). My melody was grounded in a clear tonality (MEL INT-UNDIFFERENTIATED),

and consisted of symmetrical phrases (PHR VAR-STABLE). My volume did not vary significantly (VOL VAR-STABLE).

My Verbal Meanings. After we finished playing, I shared my realization that I had not made eye contact with Chrissy during the improvisation (INTER-P). Instead, my attention had been focussed on the bars of the metallophone. As we listened to the piece together, I told Chrissy that I liked the fact that she had obviously been listening very, very carefully and that she had been watching my movement with the mallets in order to attempt to synchronize with some aspect of my playing (INTER-P). I asked her to name the improvisation, and she suggested "Sleepy." I said, "I was going to name it 'Hard' because you talked about how hard it was to play this one" (INTER-P). I was baffled by her decision to synchronize, as she had never done anything like this before (INTRA-P).

Improvisation #2c

Musical Description. This improvisation was 1 minute and 30 seconds in duration. Chrissy played the doumbek, saying she was not ready to start with the "big drum" [tubano]. She selected the guiro for me. We each played our instruments in a variety of ways: She used single strikes to form rhythmic patterns, tremolos on the rim of the drum, and scratching on the surface; I imitated her

strokes, with single taps on the guiro, multiple taps to resemble the tremolo, and scratching across the ridges.

This piece was comprised of simple rhythmic figures in duple meter punctuated by ungrounded strikes and tremolos without pulse. Meter was defined by alternating low hits in the center of the drumhead and lighter strokes near the rim. I both fused and played imitatively with Chrissy's rhythmic figures.

Tempo varied. Volume was fairly constant at *forte*, with one *fortissimo* tremolo followed by a series of *sforzando* strikes on the doumbek.

Chrissy led this improvisation and I followed. She determined the beginning and ending, established tempi and intensity levels, and introduced rhythmic figures and changes in texture.

Tension was apparent in the timbre of the guiro and the sustained loudness.

Chrissy's Organization of the Musical Elements. Chrissy controlled all aspects of this duet improvisation, beginning with the choice of instruments (TIM AUT-LEADER) and how they were played (TEX AUT-LEADER), both of which contributed to tension in the music (TIM TEN-TENSE, TEX TEN-CYCLIC). She set the initial tempo and led subsequent changes (TEM AUT-LEADER). She independently set volume

levels for the piece and tended to play slightly louder than I did (VOL AUT-LEADER). Finally, Chrissy offered rhythmic figures for me to merge with and imitate (RHY AUT-LEADER).

Chrissy's Verbal Meanings. The first thing Chrissy said is that playing had hurt her hand and that she was tired (INTRA-P). When asked if her fatigue came out in her playing, she replied, "I don't know, I was just playing something." She said she did not feel tired when she was playing, but that her hands started getting numb, which is why she stopped (INTRA-P).

As we listened to the recording, Chrissy did not initiate dialogue about the music; however, she responded willingly to my questions and observations. She heard changes in the music as we moved from random playing to a rhythmic duet but had difficulty describing what had happened (INTRA-P). She said, "I was going like that [taps on doumbek] and you started, like, making a beat" (INTER-P). I pointed out to Chrissy that as we were listening and came to that point of rhythmic convergence, she started tapping with the mallets, silently, on the pulse. When Chrissy heard herself begin a new duple pattern, she said, "It kind of got faster" (INTRA-P).

I asked Chrissy if she would give a name to the improvisation, and said she would not title it (INTRA-P). When asked which part of the piece she liked the best, she said, "Where, like, we came together, kind of made, like, music instead of doing our own thing" (INTER-P).

My Organization of the Musical Elements. I took direction from Chrissy in all aspects of my playing. I let her determine the instruments for the improvisation, including my own (TIM AUT-DEPENDENT). I depended on Chrissy to establish initial and subsequent tempi (TEM AUT-DEPENDENT). I imitated her playing configurations (TEX AUT-FOLLOWER) and many of her rhythmic figures (RHY AUT-FOLLOWER). I mostly matched her volume (VOL AUT-FOLLOWER).

My Verbal Meanings. Because Chrissy had complained of being tired, I was surprised that she put significant energy into her playing, as evidenced by her quick tempi, syncopated rhythms, and *forte* dynamics (INTRA-P). As we played together, I felt musically connected to her through pulse and rhythm, such as when I was able to successfully imitate her rhythmic motifs within a cohesive phrase or create a complementary figure (INTER-P). I told Chrissy that what stood out for me as I listened were the moments in the music when we rhythmically converged, saying, "In the beginning we weren't really steady, we were just

playing our own thing. Then all of a sudden, we found a beat together" (INTER-P).

Solo Referential

Improvisation #3a

Musical Description. This improvisation was one of several brief pieces based on various emotional states that Chrissy had identified as having difficulty feeling and/or expressing. "Sad, Depressed, and Guilty" was the shortest of these, lasting 35 seconds. Chrissy played the tubano with mallets for "sad and depressed" and the bongos with mallets for "guilty."

Chrissy's sadness was expressed on the tubano as a series of erratic strikes at varying speeds at a *pianissimo* volume level. Guilt was expressed in the same manner except for a noticeable increase in volume to *mezzo-forte*. Chrissy used more repeated notes on the larger, lower-pitched bongo drum than on the smaller, higher-pitched drum. Tempo varied. No tension was discernable.

Chrissy's Organization of the Musical Elements. Chrissy's playing was not integrated with a pulse (RHY INT-OVERDIFFERENTIATED). She placed emphasis on the intensity she used to express the two emotions, varying it slightly to convey the difference between the two (VOL VAR-VARIABLE). All other elements appeared to remain

consistent from one feeling to the next. Tempo varied somewhat (TEM VAR-VARIABLE).

Chrissy's Verbal Meanings. As soon as she stopped playing, Chrissy said, "It's kind of like, real quiet. When I get guilty I, like, get sad." I asked her if sad and guilty were the same feeling and she replied that they were alike, but that sad was softer. She said that she had trouble expressing her sadness, and especially when her feelings have been hurt by another person (INTER-P). She explained, "yeah, that's when I'm feeling sad. 'Cause, like, when somebody hurts my feelings I get mad at them and I want to hurt them back, but it really hurts my feelings" (INTER-P).

My Organization of the Musical Elements. Most noticeable in Chrissy's improvisation was the lack of a rhythmic ground (RHY INT-OVERDIFFERENTIATED) and the subdued volume, both of which were a departure from her typical style of playing.

My Verbal Meanings. In my notes on this session, I wrote that I was surprised by three specific aspects of this improvisation. First, I did not expect that Chrissy would choose a referent of such complexity to portray [guilty](INTRA-P). Second, I was taken aback by her tender, *pianissimo* playing, which she had not exhibited in

prior improvisations (INTRA-P). Finally, I was surprised by the brevity of this improvisation; this was also atypical for Chrissy (INTRA-P).

Improvisation #3b

Musical Description. The referent for this improvisation was "Anger." It was 7 minutes and 10 seconds in duration. Chrissy selected four instruments for this piece, including the djembe, tubano, doumbek, and claves. She used rubber-headed mallets on the drums.

Chrissy played the instruments both singularly and in combination with each other. When combining the timbres of the drums, she used the right-hand mallet on one drum and the left-hand mallet on another drum. Chrissy's beating was consecutive rather than simultaneous. For a brief moment, she placed one clave on the head of the tubano and struck it with the other clave while moving both of them across the drumhead.

This improvisation can be characterized as an equal mixture of random strikes in a variety of tempi and cohesive rhythmic phrases of varying lengths comprised of simple and syncopated rhythms. There was no discernable pattern to Chrissy's movement in and out of rhythmicity. Rhythmic themes were fused to a pulse more often than not and were embedded in 4/4 and 6/8 meters.

Chrissy maintained volume at *forte*. Tension occurred in the unpredictability of the random strikes and in the sustained intensity.

Chrissy's Organization of the Musical Elements. Chrissy appeared to construct meaning through a variety of methods. She expressed herself on a wide range of instruments and with diverse sounds and motor patterns (TIM VAR-VARIABLE, TEX VAR-VARIABLE). Her playing was organized in several tempi (TEM VAR-VARIABLE) and around many different rhythmic configurations (RHY VAR-VARIABLE), some of which she had used in previous improvisations, and some of which appeared for the first time in this piece. Although other features varied, volume remained constant (VOL VAR-STABLE).

Chrissy's Verbal Meanings. When asked to talk about what she had done, Chrissy replied as follows:

> Chrissy: I kind of made a beat...on the [doumbek] and on that little...?
> Susan: Handdrum.
> Chrissy: Handdrum. And then I took the sticks and I started playing with them first and tried to get a beat and then I decided to...//
> Susan: //How did those instruments represent anger for you?
> Chrissy: 'Cause they was loud and they had a beat. Like, I was, like, you're mad and then just kind of [plays claves forcefully], mad like you just want to hit something.
> Susan: So when you're angry, are you loud like those [claves]?
> Chrissy: What?

Susan: Do you get loud when you're angry?
Chrissy: [nods] Sometimes. But I've been controlling it better.
Susan: So you were trying to represent that with the way you played the sticks? [Chrissy nods] When you get angry do you feel like hitting something?
Chrissy: Yeah. I was trying with these [claves].

When asked why she chose the instruments she did, Chrissy indicated it was the loudness of the drums and the contrast in their various timbres that had appealed to her. Because the improvisation was so long, I inquired as to her ability to sustain her focus on the referent. She indicated that she had been thinking about anger the whole time she played, that her attention had not wandered.

Due to time constraints, we had to limit our listening to the first portion of the improvisation. Chrissy did not initiate conversation about what she heard, although when asked, she indicated that she thought the piece sounded angry.

My Organization of the Musical Elements. I was most aware of Chrissy's creative combination of sounds (TIM VAR-VARIABLE) and her defined yet variable rhythmic phrases (PHR VAR-VARIABLE). Her syncopated playing held my attention more than her "straight" rhythms or erratic playing. The sustained loudness of the piece was also salient (VOL VAR-RIGID).

My Verbal Meanings. This was a long improvisation, and I reluctantly stopped Chrissy before she was finished playing. My attention wandered while she improvised (INTRA-P), and I found myself wondering how she had been able to concentrate on the referent for that long a period of time. When she switched instruments, however, I was able to refocus (INTRA-P). I was impressed with Chrissy's unique use of the claves on the drumhead (INTRA-P). Finally, I was surprised that Chrissy's playing was not more forceful, with greater intensity and accents (INTRA-P).

As we listened to the recording, I said, "It's like two people talking or arguing because of the two sounds that you use, the big drum and the littler drum. It's almost like two voices talking, one and then talking back at the other."

Duet Referential

Improvisation #4a

Musical Description. This improvisation was based on the referent "Angry Conversation." Chrissy had been arguing with two of her peers just prior to the session, and she was feeling mad but did not know how to express it. She played the tubano with felt-headed mallets, and I played the tambourine. We each employed two textures on

our instruments: Chrissy used single strikes and tremolos, and I played single strikes and shakes.

The piece was monothematic and was 2 minutes in duration. I began and Chrissy ended.

This improvisation can be characterized as a series of random sounds and silences. There was no rhythmic ground, and the pace varied. At times we played in a call-response fashion, imitating the number or character of the other's strikes. At other times we played concurrently, in "phrases" of unequal lengths. Volume ranged from *mezzo-forte* to *fortissimo*.

Chrissy's Organization of the Musical Elements. Chrissy played with great and unrelenting force. Her dynamic level did not vary throughout the piece (VOL VAR-STABLE). Her playing was not grounded in a pulse, and she did not form rhythmic figures (RHY INT-OVERDIFFERENTIATED). Chrissy changed tempi drastically and abruptly (TEM VAR-RANDOM). Her timbre remained consistent (TIM VAR-STABLE).

Chrissy's Verbal Meanings. As we listened to the recording, Chrissy found representational meaning in our playing.

> Susan: What do you think is happening here?
> Chrissy: We're arguing back and forth (INTER-P).
> Susan: It got slower. Why do you think it got slower?
> Chrissy: 'Cause you wanted to quit (INTER-P).

Susan: I wanted to quit? And what did you want?
Chrissy: To keep going (INTER-P).
Susan: Now what's happening?
Chrissy: We're both trying to quit [arguing] (INTER-P).
Susan: Oh really?
Chrissy: No!
Susan: No. It sounds like you're still going. Is that what you're like when you argue?
Chrissy: Sometimes. And then sometimes it's not.
Susan: So sometimes you keep pushing and pushing and pushing and then sometimes you back off?
Chrissy: Uh-huh. Like it all depends on if I don't feel good. I'll like, whatever [shrugs shoulders]. Or if I'm really mad at somebody, like they tell me what to do or something, I'll get mad and I'll keep arguing with them.

Chrissy also stated that it felt like she was "really arguing with somebody" because my sound was different from hers and we kept interrupting one another (INTER-P). She said that even though it was kind of weird, it was fun to express these feelings through music (INTRA-P).

My Organization of the Musical Elements. Although I began at a *fortissimo* dynamic level, my intensity decreased toward the end of the piece (VOL VAR-VARIABLE). Like Chrissy, I was rhythmically ungrounded (RHY INT-OVERDIFFERENTIATED), and the rate of my expressions changed frequently (TEM VAR-RANDOM).

My Verbal Meanings. This improvisation was exciting for me. I took pleasure in the quick and unpredictable nature of our "conversation" and in the physical release of playing in an aggressive manner (INTER-P). As with this

referent with Hayley, there was a high level of energy and a sense of immediacy between players that I enjoyed (INTRA-P, INTER-P).

I told Chrissy that as I was playing I could start to feel a bit of anger, on a low level. I said I could recall previous conflict situations with other individuals and the accompanying feelings. I said, "sometimes I back off and I wait and I let them have the last word. And sometimes I'm so stubborn I've got to have the last word" (INTER-P).

Improvisation #4b

Musical Description. The title of this 6-minute improvisation was "The Tiger Rainforest" prompted an association Chrissy made with the rainstick. Before the improvisation began, Chrissy selected the rainstick for me, which I played exclusively, both shaking and tapping with a mallet. She chose to play the doumbek with an unmatched pair of mallets. As the piece evolved, she played the handdrum, tubano, crash cymbal, and soprano glockenspiel as well.

This improvisation can be described as a lengthy and unsystematic exploration of the various instruments, singularly and in combination. There was no discernable sequence in which Chrissy played them.

Most of the piece was arrhythmic. At times, Chrissy played evenly-spaced subdivisions or rhythmic fragments and I synchronized with her. She modified tempo greatly. Volume was constant at *mezzo-forte.* Tension was produced by the erratic nature of the sounds and the abrupt movement between instruments.

Chrissy's Organization of the Musical Elements. Chrissy's playing was chaotic, with only sporadic moments of rhythmicity. No rhythmic themes were developed (RHY INT-RANDOM). She played with continual and abrupt changes in tempo (TEM VAR-RANDOM) and an unchanging volume level (VOL VAR-RIGID).

Chrissy's Verbal Meanings. Chrissy revealed that she derived pleasure from this improvisation (INTRA-P). When asked what she enjoyed, she compared the timbres of the various drums, stating, "I like the sound of that [points to tubano] because that's different from that [plays handdrum] and that's different [plays tubano], especially on here [plays rim of djembe] (INTRA-P)." She assigned representational meaning to each one of the instruments: The doumbek represented the tiger because "It sounds like it's coming"; the handdrum was like thunder; the cymbal represented the wind; and the rainstick depicted the rain (INTRA-P).

Chrissy laughed and mentioned that she had tried not to play "that one rhythm" (the dotted and syncopated rhythmic theme that had become a part of nearly every improvisation, whether solo or duet), but that it had slipped its way into the music. She also said she wanted to "keep going and going and going" and that she felt energized by playing (INTRA-P).

My Organization of the Musical Elements. I was musically dependent in this improvisation. I allowed Chrissy to dictate all aspects of the piece, including timbre, tempi, volume, and rhythmicity (TIM AUT-DEPENDENT, TEM AUT-DEPENDENT, VOL AUT-DEPENDENT, RHY AUT-DEPENDENT).

My Verbal Meanings. This was an unfulfilling experience for me because even when I tapped the rainstick with the mallet, the sound of my instrument was masked by the louder sounds of the drums. It was as if I had no "voice," and this prevented me from connecting intermusically with Chrissy and having any influence over the evolution of the piece.

Appendix O

Musical and Verbal Data: Chrissy

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Chrissy - alto metallophone	Made no significant or abrupt changes to timbre (TIM VAR-RIGID)		Initially refused to play, saying, "I don't know how to"	
	Made no significant or abrupt changes to texture (TEX VAR-RIGID)		Said, "That's cool. I like that." After receiving praise from adults	
	Made no significant or abrupt changes to tempo (TEM VAR-STABLE)			
	Made no significant or abrupt changes to intensity (VOL VAR-RIGID)			
	Used pulse and subdivisions exclusively (RHY VAR-STABLE)			
	Did not create syncopated figures typical of other improvisations (RHY TENSE-CALM)			
	Played with an absence of melodic tension (MEL TEN-HYPOTENSE)			
2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Chrissy-djembe, tubano, handdrum Susan-tambourine, doumbek, cabasa	Explored 4 different timbres (TIM VAR-VARIABLE)		Stated that it was fun and she enjoyed it	
	Fused her rhythmic theme to the pulse (RHY INT-FUSED)		Said, "I felt happy and excited"	
	Played with periodic intervals of rhythmic disintegration (RHY INT-DIFFERENTIATED)			
	Did not change the			

	intensity of her playing (VOL VAR-STABLE)			
	Did not significantly modify her tempo (TEM VAR-STABLE)			
b. Chrissy - bongos Susan - alto metallophone		Took a dependent role; attempted to synchronize with my rhythmic figures and playing configurations (RHY AUT-DEPENDENT, TEX AUT-DEPENDENT)	Said she liked how the improvisation sounded after she listened to the recording	Said the improvisation was difficult to play because she was attempting to "follow" (synchronize with) my beat
			Did not know why she had chosen to copy my rhythms rather than doing her own	Was thinking, "She's going too fast. I can't do this. This sounds awful."
				Was "kind of scared" that she was going to "mess up"
c. Chrissy - doumbek Susan - guiro	Created tension through choice of timbre (TIM TEN-TENSE)	Controlled choice of instruments (TIM AUT-LEADER)	Said that playing had hurt her hand and that she was tired; she stopped because her hands were getting numb	Heard changes from random to duet play but had difficulty expressing what had happened
	Created tension through the choice of texture (TEX TEN-CYCLIC)	Controlled how the instruments were played (TEX AUT-LEADER)		Said, "I was going like that [taps on drum] and you started, like, making a beat"
		Set the initial tempo and led subsequent changes (TEM AUT-LEADER)	Said, "It kind of got faster" when she heard herself begin a new duple pattern	Like the part "where we came together, kind of made music instead of doing our own thing
		Independently set volume levels for the piece (VOL AUT-LEADER)	Said she did not have a title for the piece	
		Offered rhythmic figures for me to merge with and imitate (RHY AUT-LEADER)		

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Chrissy - tubano, bongos ("Sad, Depressed, and Guilty")	Emphasized the intensity used to differentiate between the emotions; all other elements remained constant (VOL VAR-VARIABLE)		Said, "It's kind of, like, real quiet"	
			Said, "When I get	

			guilty I, like, get sad"	
			Replied that sad was softer than guilty	
			Revealed that she had trouble expressing sadness, especially when her feelings were hurt	
			Stated, "When somebody hurts my feelings I want to hurt them back"	
b. Chrissy - djembe, tubano, doumbek, claves ("Anger")	Expressed herself on a wide range of instruments (TIM VAR-VARIABLE)			
	Used diverse sounds and motor patterns (TEX VAR-VARIABLE)			
	Organized her playing around several tempi TEM VAR-VARIABLE)			
	Used many different rhythmic configurations (RHY VAR-VARIABLE)			
	Held volume constant (VOL VAR-STABLE)			

4. Duet Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Chrissy - tubano Susan - tambourine ("Angry Conversa-tion")	Did not vary loud dynamic level (VOL VAR-STABLE)			Thought the music representing arguing back and forth
	Did not ground playing in pulse or form rhythmic figures (RHY INT-OVERDIFFERENTIATED)			Thought it got slower because I wanted to quit arguing
	Changed tempi drastically and abruptly (TEM VAR-RANDOM)			Said she wanted to keep arguing
	Held timbre constant (TIM VAR-STABLE)			Thought music represented what she was like when angry; if someone tells her what to do, "I'll get mad and I'll keep

				arguing with them"
				Said she felt like she was really arguing because my sound was different from hers and we interrupted one another
			Stated that it was weird but fun to express these feelings through music	
b. Chrissy – doumbek handdrum, tubano, cymbal, glockenspiel Susan - rainstick ("The Tiger Rainforest")	Did not develop rhythmic themes; played chaotically (RHY VAR-RANDOM)		Derived pleasure from this improvisation	
	Made continual and abrupt changes in tempo (TEM VAR-RANDOM)		Liked the differences in the various sounds of the instruments	
	Did not change volume (VOL VAR-RIGID)		Assigned representational meaning to each of the instruments	
			Wanted to "keep going and going and going" and felt energized	

Appendix P

Musical and Verbal Data: Susan (Chrissy)

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Chrissy - alto metallophone	Was struck by lack of melodic and rhythmic tension in this piece (MEL TEN-HYPOTENSE, RHY TEN-CALM)		Appreciated the homeostasis embodied in the piece	
	Noticed the unwavering volume (VOL VAR-RIGID)		Noted that the improvisation stood in stark contrast to Chrissy's previous music, which had been highly rhythmic and tense	
			Appreciated that Chrissy played in spite of her wavering confidence	

2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Chrissy - djembe, tubano, handdrum Susan-tambourine, doumbek, cabasa		Deferred leadership to Chrissy (RHY AUT-FOLLOWER, TEM AUT-FOLLOWER, VOL AUT-FOLLOWER, TEX AUT-FOLLOWER)	Was please to learn of Chrissy's ability to initiate, imitate, and sustain rhythms	Accommodated Chrissy's playing and validated her musical expressions
		Maintained a pulse while Chrissy transitioned from one instrument to the next	Was baffled by her decision to synchronize with my playing, as she had not done this before	Let her assume leadership and provided stability when it would promote her exploration and expression
b. Chrissy - bongos Susan - alto metallophone	Grounded my melody in a clear tonality (MEL INT-UNDIFFERENTIATED)	Took the lead from beginning to end, determining rhythmic aspects (TEM AUT-LEADER, RHY AUT-LEADER, MET AUT-LEADER)		Shared my realization that I had not made eye contact with Chrissy during the improvisation
	Used symmetrical phrases (PHR VAR-STABLE)			Told Chrissy that I liked the fact she had been listening very carefully in order to synchronize with my playing
	Did not vary volume			We assigned the piece different titles

	significantly (VOL VAR-STABLE)			
	Grounded my playing in a clear pulse (RHY INT-INTEGRATED)			
c. Chrissy - doumbek Susan - guiro	Played well-formed rhythmic figures in a steady pulse (RHY INT-INTEGRATED)	Let Chrissy determine the instruments for the improvisation (TIM AUT-DEPENDENT)	Was surprised she put significant energy into her playing	Felt musically connected through pulse and rhythm, such as when I was able to imitate or form a complementary rhythm
		Depended on her to establish initial and subsequent tempi (TEM AUT-DEPENDENT)		Told Chrissy that what stood out for me were those moments when we converged rhythmically and "found a beat together"
		Imitated Chrissy's playing configurations (TEX AUT-FOLLOWER)		
		Imitated many of her rhythmic figures (RHY AUT-FOLLOWER)		

a. Chrissy - tubano, bongos ("Sad, Depressed, and Guilty")	Noticed lack of rhythmic ground (RHY INT-OVERDIFFERENTIATED)		Did not expect that Chrissy would choose a referent of such complexity	
	Noticed subdued volume, which was a departure from typical style		Was taken aback by her tender, *pianissimo* playing	
			Was surprised by the brevity of the piece	
b. Chrissy – djembe, tubano, doumbek, claves ("Anger")	Was most aware of Chrissy's creative combination of sounds (TIM VAR-VARIABLE)		My attention wandered due to the length of this piece	
	Was aware of her defined yet variable rhythmic phrases (RHY VAR-VARIABLE)		Was able to refocus when she switched instruments	
	Noted her sustained loudness (VOL VAR-RIGID)		Was impressed with Chrissy's unique use of the claves on the drumhead	
			Was surprised that her playing was not louder with more	

			accents	

b. **Chrissy – tubano Susan – tambourine ("Angry Conversation")**	Noticed that intensity began at *fortissimo* and decreased toward the end of the piece (VOL VAR-VARIABLE)			Took pleasure in the quick and unpredictable nature of our "conversation" and the physical release
	Was rhythmically ungrounded (RHY INT-OVERDIFFERENTIATED)			Experienced a high level of energy and sense of immediacy between us
	Changed rate of playing frequently (TEM VAR-RANDOM)			Told Chrissy that I could feel anger as I played and that "sometimes I'm stubborn and have to have the last word"
b. **Chrissy – doumbek, handdrum, tubano, cymbal, glockenspiel Susan – rainstick ("The Tiger Rainforest")**		Allowed Chrissy to dictate all aspects of the piece (TIM AUT-DEPENDENT, TEM AUT-DEPENDENT, VOL AUT-DEPENDENT, RHY AUT-DEPENDENT)	Felt unfulfilled because the sound of my instrument was masked	Lack of "voice" prevented me from connecting musically with Chrissy

Appendix Q

Analysis of Improvisations: Tanisha

Solo Nonreferential

Improvisation #1a

Musical Description. Tanisha performed this piece on the alto metallophone in F Lydian. It was 1 minute and 50 seconds in duration. The improvisation was comprised of five brief sections, each delineated by changes in rhythmic and melodic configurations. Tanisha produced two distinct timbres by using mallets with rubber and wooden heads. Sections 1, 2, 3, and 5 were played with the rubber mallets.

The first section was comprised of two identical descending phrases in duple meter, grounded in the key of C major. Remaining sections had no tonal center.

The second section was defined by a series of 4-beat phrases made up of a dotted eighth/sixteenth note unit followed by two eighth notes, a quarter note, and a quarter rest.

Section 3 was made up of an ascending scale, which evolved into ascending thirds. Also in this segment, Tanisha played slow and sustained descending thirds.

In the next section, Tanisha switched to the wooden mallets and thus modified the timbre. This section

consisted of a few repeated notes and an ascending and descending scale that spanned the length of the instrument.

The final segment was a return to the dotted rhythm pattern from the second section coupled with scalar motion and skips of a third.

Tempo was variable. Volume was steady at *forte*. With the exception of Section 1, Tanisha did not develop cohesive melodic themes. No harmony was used.

Tanisha's Organization of the Musical Elements. Tanisha varied timbre on the metallophone as much as was possible (TIM VAR-VARIABLE). She used the entire range of the instrument, with one voicing configuration (TEX VAR-STABLE).

Tanisha formed two complete melodic phrases in Section 1 (MEL INT-INTEGRATED). Remaining melodic material was comprised of varied fragments, including ascending and descending scales, ascending and descending thirds, and repeated notes (MEL VAR-VARIABLE). All tonal material was fused to the Lydian mode, which was fixed on the instrument (MEL INT-FUSED).

In Section 2, Tanisha used one particular dotted rhythmic figure over and over again (RHY VAR-STABLE). (This theme was found in her other melodic and nonmelodic improvisations.) The figure was grounded in a basic pulse

(RHY INT-INTEGRATED). Apart from this section, she modified tempo considerably (TEM VAR-VARIABLE).

Tanisha held volume constant within and between sections (VOL VAR-STABLE).

Tanisha's Verbal Meanings. During the improvisation, between Sections 1 and 2, Tanisha exclaimed, "I like this!" (INTRA-P). After the piece, she said, "I just wanted to see what each one sounds like," and she continued to experiment (INTRA-P), playing single bars and then two pitches at a time.

My Organization of the Musical Elements. Three aspects of Tanisha's music had meaning for me. First, parts of it were highly organized, as with the regimented scalar passages in Sections 3 and 4 and the melody in Section 1, which was both rhythmically and tonally grounded (RHY INT-INTEGRATION, MEL INT-UNDIFFERENTIATED). Second, aspects of the piece were repetitive, as in the use of scales and thirds and the dotted rhythmic theme that had recurred throughout her improvisations (RHY VAR-STABLE). Finally, I noticed that she did not complete the fourth measure of this theme; she fell away from the pulse and her intensity dwindled slightly.

My Verbal Meanings. My notes on this session indicated that "I was surprised by her ability to fluidly

and flawlessly repeat the opening melody/phrase; I wonder if she has heard or played that melody before?" (INTRA-P). Other statements included the following:

> It appeared as though Tanisha enjoyed the alto metallophone more than the other instruments tonight (INTRA-P). She really took her time with it; she did not appear hurried or distracted as she often does when we improvise (INTRA-P). It seemed as though she was really focussing on the quality of the sound (timbre), as she would let certain pitches ring in a sustained fashion while she cocked her head to one side (INTRA-P). I expected that she would play *glissandi* as she has done on the soprano glockenspiel, but she did not.

Duet Nonreferential

Improvisation #2a

Musical Description. This was Tanisha's first improvisation with me. It was 6 minutes and 5 seconds in duration, owing to her exploration of 7 different instruments in succession: soprano glockenspiel, rainstick, claves, finger cymbals, crash cymbal, agogo bells, and cabasa. Playing configurations varied according to instrument. The following description is divided into sections according to the instrument Tanisha selected.

In Section 1, Tanisha played the soprano glockenspiel and I played the bongos. She began with a well-formed, 4-beat duple rhythm, a dotted eighth/sixteenth note unit followed by two eighth notes, an eighth note, and a rest to complete the measure. The figure was aligned with a pulse,

but the initiation of each figure was unevenly spaced. Each phrase was a series of ascending intervals. There was no formed melody and no tonal center. I played a variety of highly-accented rhythmic figures during Tanisha's silence at the end of each measure. She played one descending *glissando* and I began drumming my fingers across the rim of the bongos in a steady pulse. She synchronized by playing descending *glissandi*, then played her own subdivided pattern with both strikes and *glissandi*.

Tanisha moved abruptly to the rainstick for Section 2. I continued to drum my fingers at a *piano* level during the transition. She played in a nonrhythmic way for 15 seconds, then returned to executing the dotted rhythm on the glockenspiel while tilting the rainstick. I completed each measure with a single strike or multiple strikes of the finger cymbals, sometimes imitating her rhythmic theme. This led into a brief antiphon and my return to the bongos. I played dotted rhythms in complete phrases as she made the transition to the claves for Section 3.

In Section 3, Tanisha played several repetitions of her dotted rhythm theme on the claves while I explored various rhythms and volume levels on the doumbek. I ended the segment with three accented strikes, the last of which fell on the downbeat.

Tanisha moved to the finger cymbals for Section 4 and I once again selected the other pair. We played in call-response fashion, taking turns leading and imitating one another. There was no consistent pulse. I continued on the finger cymbals and Tanisha selected the crash cymbal for Section 5.

I moved to the doumbek for this section, which was characterized by a strong pulse. Both Tanisha and I played various subdivisions in duple meter. Tanisha also revisited her dotted rhythmic theme. I introduced syncopation while Tanisha continued on the beat. I began a tremolo and Tanisha joined me. I ended this section with three accented strikes identical to those at the end of Section 3.

Tanisha switched to the agogo bells for Section 6. I played the djembe. She played duple rhythms consisting of quarter and eighth notes. These subdivision patterns were not consistently organized around a pulse. I played slightly more complex rhythmic patterns at a quicker tempo. The two parts did not regularly coincide. I kept a basic beat during the transition to the next segment.

In the final section, I established triple meter on the djembe with an accented quarter note on the first beat, subdivisions on beat two, and a quarter note on beat three.

I initiated an *accelerando* and an accompanying *crescendo* to *fortissimo.* Tanisha played a series of unmeasured taps and scrapes on the cabasa, synchronizing her pace and volume with mine to the end.

Tanisha's Organization of the Musical Elements. Salient in Tanisha's music was her employment of a variety of instruments in her construction of meaning (TIM VAR-VARIABLE). She used both melodic and nonmelodic instruments, as well as instruments that require a variety of playing configurations, including striking with mallets, striking with hands, striking together, shaking, and scraping (TEX VAR-VARIABLE).

Also prominent in this lengthy improvisation was Tanisha's repetition of her dotted rhythmic figure (RHY VAR-STABLE). This figure appeared in Sections 1, 2, 3, and 5.

Tanisha served as a leader in many aspects of this piece. She established tempi and meter within Sections 1, 2, 3, and 6 (TEM AUT-LEADER, MET AUT-LEADER). On the other hand, she synchronized with my pulse at times, imitated some of my simple rhythmic motifs, and followed all of my changes in volume (VOL AUT-FOLLOWER) as they occurred.

Tanisha's Verbal Meanings. As we listened, I asked Tanisha which aspect of the improvisation stood out for

her. She replied that she noticed and liked the part when "it sort of sounded like somebody was coming and got closer" (INTRA-P). She continued, "Yeah, it was like, get away from me, here I come!" When asked if this was a scary sound, Tanisha answered that it was not, but that "it was just like if you just see somebody coming from the distance and you can hear them coming closer and closer..." She said it was as if a face might pop out of the stereo speakers and say, "Uh, I'm here!"

The other characteristic that stood out for Tanisha was our relative volume and the competition it created between us. She stated, "I remember I had this [cabasa] and I think you had the drum and the xylophone, and you got loud so I had to get loud like we were competing, like two tribes beating against each other" (INTER-P).

Finally, Tanisha mentioned that she kept "messing up on being able to keep a rhythm that was more steady" (INTRA-P) and as a consequence, that she had played more softly than I had (INTER-P).

My Organization of the Musical Elements. As Tanisha progressed through her sequence of instruments, I advanced through four "voices:" bongos, finger cymbals, doumbek, and djembe (TIM VAR-VARIABLE). In selecting the finger cymbals, I fused my timbre with Tanisha's (TIM INT-FUSED).

I did not always synchronize my timbre change with Tanisha's. I sometimes maintained a basic pulse or repetitive rhythmic motif as "connective tissue" between one section and the next, just until Tanisha had embraced and begun to play her new instrument.

My playing was rhythmic and highly accented in all but Section 4. Rhythms were typically grounded in a consistent pulse (RHY INT-INTEGRATED) and were based on both duple and triple meters (MET VAR-VARIABLE).

Although I followed several of Tanisha's musical leads, I also acted as a leader, most noticeably in my initiation of pulse (RHY AUT-LEADER) and my changes in volume (VOL AUT-LEADER).

My Verbal Meanings. My initial comment to Tanisha was that she had tried a lot of instruments (INTRA-P), which I had not expected her to do. I told her that I liked the very beginning of the piece because "it sounded like we were communicating very quickly" and our respective parts had interlocked (INTER-P).

I also stated that I appreciated it when Tanisha accidentally hit the triangle stand with the striker. I mentioned that I could tell by her face that she was embarrassed and that my reaction was to tap the wooden frame of the glockenspiel just to let her know that there

is no one "correct way" to play the instruments in improvisation (INTER-P).

Finally, I noted that we endeavored and managed to stay in some kind of rhythmic relationship throughout the piece, that "even when we broke away, even if we were doing things like this [played tremolo on drum], pretty soon one of us would start another rhythm" (INTER-P).

Improvisation #2b

Musical Description. This nonreferential duet lasted 1 minute and 45 seconds. Tanisha played the metal ganza with the metal striker and I played the doumbek. Tanisha used three playing configurations on the ganza: scraping, striking, and shaking. I used striking and rolling with my fingertips on the rim of the drum. Simultaneous timbres were quite different from one another.

This piece was comprised of both synchronous and antiphonal playing. There were two discrete rhythmic patterns used. Tanisha initiated the first of these, a duple figure comprised of quarter and eighth notes. I introduced the second, an eighth note followed by two eighth rests and two sixteenth notes. Tanisha often filled in the rests with two eighth notes of her own.

Tanisha's rhythmic variations were minimal in that she mostly played subdivided patterns. My rhythmic variability

was moderate. For most of the piece, the rhythms were either fused or integrated with a ground. There were two departures from a stable tempo: a series of slow scrapes that Tanisha played followed by brisk tapping in the original speed, and an *accelerando* which I initiated shortly thereafter.

Volume remained stable at *forte*.

Tanisha's Organization of the Musical Elements. Tanisha found several ways to create and combine sounds on the ganza (TEX VAR-VARIABLE). There was stability in her rhythmic expressions, as reflected in the uniform nature of her patterns (RHY VAR-STABLE), and their fusion or integration with the pulse (RHY INT-FUSED, RHY INT-INTEGRATED). She assumed both leader and follower roles. She established the original tempo and slowed it mid-way through the piece; she also synchronized with my tempo change and rhythms at the very end of the improvisation (RHY AUT-PARTNER).

Tanisha's Verbal Meanings. Tanisha described the improvisation as fun (INTRA-P), which was evidenced in her spontaneous laughter at the end of the piece. When asked more specifically what she found enjoyable, she replied, "Like, the thing at the end, like where we, like when I was trying to keep up with you and you kept going faster and

faster" (INTER-P). She also enjoyed playing the ganza because it was a new instrument for her.

While listening, Tanisha said the music sounded like rain and "something out of the Jungle Book that I liked" (INTRA-P). She described what was happening between the drum and the ganza as "back and forth" (INTER-P). Later, Tanisha identified this particular piece as her favorite of the session, although she could not say why (INTRA-P).

My Organization of the Musical Elements. Like Tanisha, I constructed meaning through rhythmic stability. Although my rhythmic figures were more complex and varied than hers (RHY VAR-VARIABLE), there were no dotted or syncopated values. All rhythmic figures fit neatly into the established duple meter (RHY INT-INTEGRATION) and at times were fused with Tanisha's (RHY INT-FUSED). As stated above, there was a partnership in that we took equal responsibility for determining tempi (TEM AUT-PARTNER).

My Verbal Meanings. I was moved to laughter by the immediacy and playfulness of our intermusical communication at the end of the piece (INTER-P). I shared with Tanisha that this part of the improvisation "felt like a game to me" (INTER-P). During playback, when she noticed the back and forth nature of our playing, I used the metaphor of a conversation, saying, "Now we're talking at the same time,

aren't we?" At the *accelerando*, I told Tanisha that I was speeding up to see if she would go with me (INTER-P). I closed by saying, "I liked what we had at the end where we were communicating with our instruments. That was neat" (INTER-P).

Improvisation #2c

Musical Description. This monothematic piece was 1 minute and 15 seconds in duration. Tanisha selected the triangle and I played the talking drum, thus two contrasting timbres were represented.

This improvisation was a blend of antiphonal and synchronous music. During antiphonal play, I introduced rhythms and Tanisha echoed them, although her renditions were not always aligned with the established pulse.

When playing together, our rhythmic expressions were sometimes integrated and sometimes differentiated from one another, which created tension. Tanisha fused or nearly fused with several of my motifs.

I created many different rhythmic figures on the talking drum, each grounded in the pulse. About half way through the piece, I established 6/8 meter.

Volume was variable, ranging from *piano* on both instruments to *forte* on Tanisha's triangle and *fortissimo* on my talking drum. Tempo was also varied.

Tanisha's Meaning-Making in the Music. Tanisha took on a dependent role throughout this piece. She regularly imitated or fused with my rhythmic motifs (RHY AUT-DEPENDENT). Her volume (although less maneuverable on her chosen instrument than mine) matched my intensity in overall contour (VOL AUT-DEPENDENT). She established tempo briefly in the beginning but then yielded to mine for the balance of the piece (TEM AUT-DEPENDENT). Her lack of musical identity was further magnified by her choice of instrument, which was uni-dimensional and had little authoritative or expressive potential (TIM VAR-RIGID).

Tanisha's Verbal Meanings. When asked, Tanisha replied that the piece "wasn't that exciting" (INTRA-P). She thought it "seemed dead compared to the others" that we had played during the same session (INTRA-P). When I asked what it was in the music that made it sound dead, Tanisha answered, "We weren't communicating, I think. Like, we didn't have [inaudible] before when we were actually listening to each other" (INTER-P).

My Organization of the Musical Elements. For this improvisation, I chose an instrument that stood in stark contrast to Tanisha's triangle (TIM INT-DIFFERENTIATED). I was able to play with varying intensity levels and a range of fairly discrete pitches.

My playing was commanding throughout. I did not provide a rhythmic ground for any significant period of time in this improvisation. Rather, I supplied diverse rhythmic motifs (RHY VAR-VARIABLE) which Hayley imitated or with which she synchronized with varying degrees of accuracy (RHY AUT-LEADER). I determined the meter (RHY AUT-LEADER) and the length of the phrases (PHR-AUT-LEADER). I initiated all but one of the tempi and their changes (TEM AUT-LEADER). I also originated changes in volume (VOL AUT-LEADER).

My Verbal Meanings. I began the verbal processing by telling Tanisha that I found the improvisation to be "kind of boring" (INTRA-P). I suggested that the piece sounded "random," perhaps because "there really was no basic beat that we both found or played around...except for a little while" (INTER-P).

Solo Referential

Improvisation #3a

Musical Description. This improvisation was based on the referent, "Loneliness." Tanisha elected to play the crash cymbal with one felt mallet and one wire brush. She played for 2 minutes and 10 seconds, using two timbres created by three separate playing configurations: a strike

with the mallet head, a strike with the brush handle, and a scrape with the brush.

The content of this piece can be described as an even mixture of rhythmic and random play. Sporadically, Tanisha used one distinct duple rhythmic theme, a dotted eighth/sixteenth unit followed by two eighth notes, a quarter note, and a quarter rest. (This figure appeared frequently in Tanisha's other rhythmic and tonal improvisations.) These rhythmic expressions were grounded in a pulse. In between the figures, she played random strikes and scrapes of varying volume, ranging from *pianissimo* to *mezzo-forte*. Tempo was slow overall, but variable.

Tanisha's Organization of the Musical Elements. Meaning was made in the creation of several different kinds of sounds with one instrument (TIM VAR-VARIABLE) at different levels of intensity (VOL VAR-VARIABLE). Tanisha's playing both coincided with a pulse (RHY INT-INTEGRATED) and did not coincide (RHY INT-OVERDIFFERENTIATED). Although Tanisha did not play in a consistent tempo (TEM VAR-VARIABLE), the overall pace of the piece was slow.

Tanisha's Verbal Meanings. In describing what it was like to play emotions on the instruments, Tanisha replied

that it was easier than talking about them (INTER-P). She did not know how well she had actually represented the feeling of loneliness (INTRA-P). She said, "I don't know. I was just playing over here. I was, like, with my hands, just playing, like, with my hands....Usually when I get a feeling or something, my hands might do something" (INTRA-P).

During playback, Tanisha could hear the softness of her playing but did not know why she played so quietly. When asked, she said that it felt "right" to play that way (INTRA-P).

My Organization of the Musical Elements. Salient in this improvisation was a lack of salience. That is, each of the musical elements that Tanisha used seemed to contribute equally to the composite sound (TIM SAL-CONTRIBUTING, TEX SAL-CONTRIBUTING, VOL SAL-CONTRIBUTING, RHY SAL-CONTRIBUTING). Also noticeable overall was an accompanying lack of tension (TEN-HYPOTENSE). I had the sense that the music was floating rather than moving forward through time.

My Verbal Meanings. My only verbal comment to Tanisha about this improvisation was "Wow." I was immediately struck by the intentionality with which she played this referent (INTRA-P). In my field notes for the session, I

wrote, "I have not seen Tanisha concentrate in this concerted fashion before. She was very calm and every note seemed to be purposefully placed." I also indicated that "...there was nothing in the music to attract the listener -- no discernable tension -- and yet I was captivated by this improvisation, perhaps because the product and process were both so atypical for Tanisha" (INTER-P).

Duet Referential

Improvisation #4a

Musical Description. The referential for this piece was "Angry Conversation." Tanisha played the bongos with rubber mallets, and I played the tubano and crash cymbal with a felt mallet. The "conversation" lasted 1 minute and 5 seconds.

The piece consisted of three brief parts. Section 1 was characterized by a lack of pulse and a series of cymbal crashes followed by both synchronous and responsive sound "spurts" (random hits and quick tremolos ending with accented strikes) on both drums. I established the volume, which remained stable at *fortissimo.*

I struck the cymbal twice and Tanisha echoed these beats, thereby establishing a pulse that marked the beginning of Section 2. We fused rhythmically and timbrally on the two drums, accelerating slightly through a

series of 14 motifs comprised of a quarter note followed by two eighth notes. Tanisha initiated a tremolo, with which I merged.

I began the final section with a series of 5 cymbal crashes, four of which Tanisha played with me. The dynamic level remained at *fortissimo*. There was no shared pulse in the final moments of the improvisation; my playing was arrhythmic and Tanisha's was metered. The ending was abrupt.

Tension was created in this piece through volume, lack of rhythmic integration, and the harsh timbre of the crash cymbal.

Tanisha's Organization of the Musical Elements. Tanisha's musical expressions in this improvisation were formed from a mixture of stability and change. Her timbre remained consistent (TIM VAR-STABLE), as did her volume (VOL VAR-STABLE). In Section 2, her unchanging rhythmic figure was fused to an unwavering pulse (RHY VAR-STABLE, RHY INT-FUSED).

Change and unpredictability occurred in Tanisha's lack of rhythmic integration in Section 1 (RHY INT-DIFFERENTIATED), her movement from a series of simple strikes to a tremolo at the end of Section 2 (TEX VAR-VARIABLE), and her shifts in tempo. Tension appeared in

the volume (VOL TEN-TENSE), timbre (TIM TEN-TENSE), and lack of rhythmic stability (RHY TEN-TENSE).

Tanisha's Verbal Meanings. Tanisha did not have much to say about this improvisation. She described the experience as "weird," saying she did not usually like being loud (INTRA-P). When asked if she ever got loud, Tanisha said, "Sometimes, yeah, but I don't get that loud, unless I'm screaming at somebody" (INTRA-P). She declared that she screams "when somebody hurts somebody else." Before we listened to the recording of this improvisation, Tanisha said, "It's going to be loud!" She did not request to stop the recording. Instead, she began striking the triangle that she was holding in synchrony with the "crashes" on the cymbal.

My Organization of the Musical Elements. The volume of this piece was salient because of its extreme and unchanging nature (VOL VAR-RIGID). The instruments that I selected were well-suited to loud, accented declarations, and I used them steadily in this manner.

The formal structure of the improvisation was also notable. I contributed to the chaotic character of Section 1 (RHY INT-DIFFERENTIATED), the organized nature of Section 2 (RHY INT-FUSED), and, in that I chose not to align with Tanisha's measured playing in Section 3, (RHY AUT-

RESISTER), the return to disorderliness in the final moments of the piece.

I led in certain aspects of the music (VOL AUT-LEADER) and followed in others (TEX AUT-FOLLOWER).

My Verbal Meanings. When we had finished listening, I commented that I was surprised that we had found a common rhythm during the middle section of the improvisation (INTER-P). I wondered outloud if perhaps our fusion represented either a moment of harmony or a battle during which we were "talking at the same time and waiting for the other one to back down" (INTER-P). In my field notes for this session, I wrote that I regretted not having verbally processed this improvisation more fully (INTRA-P).

Appendix R

Musical and Verbal Data: Tanisha

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Tanisha - alto metallophone	Varied timbre as much as was possible on the instrument (TIM VAR-VARIABLE)		Exclaimed, "I like this!"	
	Used the entire range of the instrument, with one voicing (TEX VAR-STABLE)		Wanted to continue to experiment with the instrument	
	Formed complete melodic phrases (MEL INT-INTEGRATED)			
	Used varied melodic material (MEL VAR-VARIABLE)			
	All tonal material was fused to the Lydian mode, which was fixed (MEL INT-FUSED)			
	Used one particular rhythmic figure repeatedly (RHY VAR-STABLE)			
	Grounded rhythm in pulse (RHY INT-INTEGRATED)			
	Modified tempo considerably (TEM VAR-VARIABLE)			
	Held volume constant within and between sections (VOL VAR-STABLE)			

2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Tanisha - soprano glockenspiel, rainstick, claves, finger cymbals, crash cymbal, agogo bells, cabasa Susan-bongos, finger cymbals,	Employed a variety of instruments (TIM VAR-VARIABLE)	Established tempo and meter (RHY AUT-LEADER)	Liked the part when "it sounded like somebody was coming and got closer"	Said it was as though we were competing with loudness, "like two tribes beating against each other"

doumbek, djembe				
	Used a variety of playing configurations (TEX VAR-VARIABLE)	Followed my changes in volume without exception (VOL AUT-FOLLOWER)	Mentioned that she kept "messing up" on maintaining a rhythm	Played more softly than I did because she kept "messing up"
	Repeated a dotted rhythmic figure (RHY VAR-STABLE)			
b. Tanisha - metal ganza Susan-doumbek	Found several ways to create and combine sound on the ganza (TEX VAR-VARIABLE)	Established and manipulated tempo; synchronized with my tempo changes and rhythms (TEM AUT-PARTNER)	Described improvisation as fun	Found the ending enjoyable; specifically liked when she was trying to keep up with me
	Used uniform rhythmic patterns (RHY VAR-STABLE)		Thought the instrument sounded like rain and the music sounded like "Jungle Book"	Described drum and ganza playing as "back and forth"
	Fused rhythms with pulse (RHY INT-FUSED)		Identified this improvisation as her favorite of the session but could not say why	
	Integrated rhythms with pulse (RHY INT-INTEGRATED)			
c. Tanisha - triangle Susan - talking drum	Chose a uni-dimensional instrument with little expressive potential (TIM VAR-STABLE)	Regularly imitated or fused with my rhythmic motifs (RHY AUT-DEPENDENT)	Did not find the piece exciting	Thought the reason it sounded "dead" was because we weren't communicating like before, when "we were actually listening to each other"
		Matched volume to mine (VOL AUT-DEPENDENT)	Said it sounded "dead" compared to other improvisations in the session	
		Yielded to my tempi (TEM AUT-DEPENDENT)		

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Tanisha – cymbal ("Loneliness")	Created several different sounds with one instrument (TIM VAR-VARIABLE)			Said it was easier to play emotions than to talk about them
	Played at different levels of intensity (VOL VAR-VARIABLE)		Was not sure how accurately she had represented the referent on the instrument	
	Both coincided with pulse (RHY INT-INTEGRATED) and fell away from it (RHY INT-		Said she was playing "with her hands" just as when she uses her hands to express emotions	

	OVERDIFFERENTI-ATED)			
	Did not play in a consistent tempo (TEM VAR-VARIABLE)		Stated that it felt "right" to play softly for this piece	

4. Duet Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Tanisha - bongos Susan - tubano, cymbal ("Angry Conversation")	Held timbre constant (TIM VAR-STABLE)		Described the experience as "weird"	
	Held volume stable (VOL VAR-STABLE)		Said she did not usually like being loud	
	Played unchanging rhythmic figure (RHY VAR-STABLE)			
	Fused her rhythm to an unwavering pulse (RHY INT-FUSED)			
	Rhythm was not grounded in first section (RHY INT-DIFFERENTIATED)			
	Moved from a series of strikes to a tremolo (TEX VAR-VARIABLE)			

Appendix S

Musical and Verbal Data: Susan (Tanisha)

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. **Tanisha - alto metallophone**	Noted that parts of the piece were highly organized, as with melody, which was rhythmically and tonally grounded (RHY INT-INTEGRATED, MEL INT-UNDIFFERENTIATED)		Was surprised by Tanisha's ability to fluidly and flawlessly repeat the opening melody/phrase	
	Noted her use of the dotted rhythmic theme that appeared throughout her nonmelodic improvsisations (RHY VAR-STABLE)		Noticed that she appeared to enjoy the metallophone more than the other instruments	
			Noticed that she did not appear hurried or distracted as she often does	
			Perceived that she was really focussing on the timbre of the instrument	
			Expected she would play *glissandi*, which she did not	

2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. **Tanisha - soprano glockenspiel, rainstick, claves, finger cymbals, crash cymbal, agogo bells, cabasa** **Susan - bongos, finger cymbals, doumbek, djembe**	Advanced through four different "voices" (TIM VAR-VARIABLE)	Fused my timbre with Tanisha's (TIM INT-FUSED)	Commented that Tanisha had tried a lot of different instruments, which I had not expected her to do	Told her that I liked the beginning because we were "communicating very quickly" and our respective parts had interlocked
	Grounded my rhythms in a consistent pulse	Initiated pulse (RHY AUT-LEADER)		Mentioned that my reaction to Tanisha's embarrassment at

	(RHY INT-INTEGRATED)			missing the instrument with the striker was to tap the frame of the glockenspiel
	Based my rhythms on both duple and triple meters (MET VAR-VARIABLE)	Initiated changes in volume (VOL AUT-LEADER)		Noted that we endeavored and managed to stay in some kind of rhythmic relationship throughout the piece.
		Maintained a pulse between one section and the next, until Tanisha had embraced and begun to play new instrument		
b. **Tanisha - metal ganza** **Susan - doumbek**	Created rhythmic figures that were complex and varied (RHY VAR-VARIABLE)	Fused with Tanisha's rhythms at times (RHY INT-FUSED)		Was moved to laughter by immediacy and playfulness of our intermusical communication at end of piece
	Fit rhythms neatly into established duple meter (RHY INT-FUSED)	Took equal responsibility for determining tempi (TEM AUT-PARTNER)		Shared that the end felt like a game between us
				Sped up to see if she would go with me
				Told her that "I liked what we had at the end where we were communicating with our instruments
c. **Tanisha - triangle** **Susan - talking drum**	Chose an instrument that stood in stark contrast to Tanisha's (TIM INT-DIFFERENTIA-TED)	Determined the meter (RHY AUT-LEADER)	Told Tanisha I found the improvisation boring	Suggested that the piece sounded "random" because there was no basic beat that we both found or played around
	Played diverse rhythmic motifs (RHY VAR-VARIABLE)	Determined phrase length (PHR AUT-LEADER)		
		Initiated tempi changes (TEM AUT-LEADER)		
		Originated changes in volume (VOL AUT-LEADER)		

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. **Tanisha - cymbal ("Loneliness")**	Lack of salience was salient; each of the musical elements contributed equally to the composite sound (TIM SAL-CONTRIBUTING,		Immediately commented "Wow"	

	TEX SAL-CONTRIBUTING, VOL SAL-CONTRIBUTING, RHY SAL-CONTRIBUTING)			
	Lack of tension was noticeable (TEN-HYPOTENSE)		Was struck by intentionality with which Tanisha played this referent	
			Was captivated by the improvisation, perhaps because the product and process were atypical for Tanisha	

4. Duet Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Tanisha - bongos Susan - tubano, crash cymbal ("Angry Conversation")	Used extreme and unchanging volume (VOL VAR-RIGID)	Chose not to align with Tanisha's measured playing (RHY AUT-RESISTER)	Regretted not having processed this improvisation more fully	Commented that I was surprised we had found a common rhythm during the middle of the piece
	Contributed to the chaotic nature of Section 1 (RHY INT-DIFFERENTIATED)	Led volume (VOL AUT-LEADER)		Wondered if our fusion represented either a moment of harmony or a battle
	Contributed to organization of Section 2 (RHY INT-FUSED)	Followed Tanisha's playing configurations (TEX AUT-FOLLOWER)		

Appendix T

Analysis of Improvisations: Ralph

Solo Nonreferential

Improvisation #1a

Musical Description. This improvisation lasted 25 seconds and was performed on the tambourine. Ralph struck the head and the jingles with a felt-headed mallet. The entire piece was comprised of a series of clearly formed rhythmic figures in duple meter in a consistent tempo. Figures consisted of simple subdivisions and syncopation and were organized into phrases of predictable length. Volume was consistent at *forte.*

Ralph's Organization of the Musical Elements. Ralph found musical meaning in order and stability. His playing was highly organized, with distinct rhythmic figures that were grounded in a consistent pulse (RHY INT-INTEGRATED) and grouped into predictable phrases (PHR VAR-STABLE).

Ralph's Verbal Meaning. Ralph smiled during and after the improvisation, but he did not comment on its meaning, except to say that he thought the instrument made a "cool" sound (INTRA-P).

My Organization of the Musical Elements. As an observer, I was drawn to the clarity and symmetry of

Ralph's rhythmic expressions (RHY INT-INTEGRATED, PHR VAR-STABLE).

My Verbal Meanings. This was Ralph's first improvisation and I was eager to hear what he was capable of creating (INTRA-P). I was curious as to whether his perceptual and cognitive delays would be manifested in difficulty with organizing his sounds into perceptible forms, and was pleased that this was seemingly not the case (INTRA-P). I noted that Ralph was energetic and focussed as he played (INTRA-P). This was a brief improvisation, and I found myself wishing that he had played for a longer period of time (INTRA-P).

Improvisation #1b

Musical Description. Ralph played this piece on the bongos, tubano, claves, and cymbal. It was 2 minutes in duration. There were three clearly defined sections.

Section 1 consisted of a series of subdivided rhythms on the claves in duple meter. These figures were precisely grounded in a pulse. Tempo did not waver. Volume was constant at *forte*.

Section 2 was comprised of uneven subdivisions on the tubano and bongos, which Ralph played alternately using one hand for each drum. The section ended with a steady,

repeated pattern of eighth and quarter notes followed by a tremolo on the tubano and a crash on the cymbal.

The final section began seamlessly with single strikes on the cymbal in a slow then moderate tempo. Volume was *mezzo-piano*. Ralph modified the timbre by alternating between the head and the handle of the mallet on the edge of the cymbal. A crescendo over six steady strikes on the cymbal led to an accelerating tremolo on the tubano and a final crash. The piece ended at a *fortissimo* dynamic level.

Tension was cyclic, with volume and tempo assisting in the accumulation and release of energy.

Ralph's Organization of the Musical Elements. Ralph's creation was a sequence of climaxes followed by immediate decreases of sound mass and tempo (VOL TEN-CYCLIC, TEM TEN-CYCLIC). Rhythmic figures were clearly grounded in Section 1 (RHY INT-FUSED), and subdivisions played in remaining segments were occasionally aligned with a pulse (RHY INT-DIFFERENTIATED). Ralph exhibited freedom in his use of dynamics, employing gradual *crescendi* and *decrescendi* as well as abrupt changes (VOL VAR-VARIABLE).

Ralph's Verbal Meanings. The first thing Ralph said when he was finished was, "I was just messing around." When I asked how that felt, he replied, "Fun and cool"

(INTRA-P. He went on to explain that the instruments caused him to think about his mom and about African drums and China (cymbal) and movies that he had seen (INTRA-P).

I asked Ralph if it felt different inside to play loud versus soft music, and he replied that it did. He likened playing loudly to yelling for his mom in another room and playing softly to speaking to someone as if they were close by (INTER-P). He said, "Talking is, like, not as nerve-wracking as, uh, yelling. That's all I've got to say" (INTRA-P). He did not care to listen to the recording of his improvisation.

My Organization of the Musical Elements. What was meaningful for me in this improvisation was the manner in which Ralph integrated simultaneous musical elements of tempo, texture, and volume to produce the desired build-up and release of tension (TEM TEN-CYCLIC, TEX TEN-CYCLIC, VOL TEN-CYCLIC). Furthermore, he capitalized on the timbre of each instrument (TIM VAR-VARIABLE), using the claves to form discrete, "crisp" rhythmic figures, the drums to produce full tremolos, and the cymbal to both build and release tension at critical moments in the improvisation.

My Verbal Meanings. I told Ralph that I heard this as a "very well-formed improvisation with a lot of exciting moments" (INTRA-P). I noted that he had created distinct

sections, as are present in other kinds of musical compositions such as songs and raps.

I was quite impressed with this improvisation in that it was much more expressive than many of the solo pieces I had heard from other participants. I was also pleased with the confident manner in which Ralph played, given that he had made several self-degrading comments earlier in the session (INTRA-P).

Duet Nonreferential

Improvisation #2a

Musical Description. This was Ralph's first improvisation with me. He selected the tubano with mallets and the crash cymbal, and I chose the djembe. The piece was 1 minute and 20 seconds in duration.

Throughout most of the improvisation, Ralph played phrases consisting of subdivisions followed by a single crash on the cymbal. I established the pulse and played subdivisions on the djembe. Ralph's playing aligned with this pulse only occasionally. There was one synchronous nonrhythmic tremolo on the drums, which Ralph initiated. Volume ranged from *forte* to *fortissimo* on the drums with *sforzandi* on the cymbal. The overall pace was consistent.

Ralph's Organization of the Musical Elements. Ralph used multiple timbres and textures in this improvisation

(TIM VAR-VARIABLE, TEX VAR-VARIABLE). Although his subdivisions did not consistently relate to the basic beat (RHY INT-OVERDIFFERENTIATED), he created phrases that were symmetrical and repetitive (PHR VAR-STABLE). The intensity of his playing did not change significantly (VOL VAR-STABLE), nor did the tempo (TEM VAR-STABLE). He took the lead in the duet by initiating the tremolo (TEX AUT-LEADER) and by dictating the ending with the final cymbal crash.

Ralph's Verbal Meanings. Ralph described this experience as "OK." When asked what he liked about it, he said the beat, because he was playing in a way that reminded him of rap music (INTRA-P). Ralph indicated that he was trying to find a steady beat on his drum (INTRA-P). The middle of the piece was Ralph's favorite part because he liked playing a drum roll leading up to a cymbal crash (INTRA-P).

When asked how aware Ralph was of my playing, he said, "I was wrapped up in my own [music]" (INTER-P).

My Organization of the Musical Elements. Although I established the initial tempo, I deferred to Ralph's musical leadership throughout the balance of this improvisation. I allowed him to determine rhythmic content and form (RHY AUT-DEPENDENT), texture (TEX AUT-DEPENDENT), and intensity (VOL AUT-DEPENDENT) and changes therein. I

also acknowledged his control over the ending of the piece with his characteristic cymbal crash.

My Verbal Meanings. This improvisation was disconcerting to play and hear (INTRA-P). I struggled to find spaces in which to sound my instrument and be heard (INTRA-P). Finding none, and feeling disquieted by the unevenness of Ralph's subdivisions, I attempted to provide a pulse, which he resisted. I synchronized with Ralph on the tremolo as a way to feel more connected to the music and to him (INTER-P). Following this, he resumed his original pattern and I played single strikes with his cymbal crashes.

In general, I felt nonessential and awkward in the duet (INTER-P).

Improvisation #2b

Musical Description. This monothematic piece was 1 minute and 25 seconds in duration. Ralph played the agogo bells, the soprano glockenspiel with wooden mallets, and the crash cymbal. I played the cabasa and the tubano. Five timbres and eight different playing configurations were represented in all: strikes on the outside and tremolos on the inside of the agogos, strikes on the glockenspiel and cymbal, taps and scrapes on the cabasa, and strikes and tremolos on the tubano.

Ralph alternated between the glockenspiel and the agogos, playing subdivisions and simple rhythmic patterns in duple meter. His playing was grounded in a pulse about half of the time. There was no tonal center and Ralph did not form cohesive melodies on the barred instrument. He played mostly repeated notes and ascending and descending scalar passages, with occasional random intervals of a fourth and smaller. Tempo varied widely.

I played a basic beat and subdivisions, as well as imitated Ralph's rhythmic figures and created my own. A series of synchronous strikes on the glockenspiel and tubano led to a tremolo on the agogos and tubano and a final *forte* cymbal crash. Combined volume varied from *mezzo-forte* to *fortissimo,* with a *crescendo* on the tubano during the final tremolo. Tension was apparent in the lack of integration with a pulse and the climactic tremolo leading up to the crash.

Ralph's Organization of the Musical Elements. In general, Ralph's playing was highly variable in all aspects except for volume (VOL VAR-STABLE). He used a variety of timbres (TIM VAR-VARIABLE). He created diverse rhythms in many different tempi (RHY VAR-VARIABLE, TEM VAR-VARIABLE). There was no tonal center (MEL INT-OVERDIFFERENTIATED).

Although there was no definable form to this piece, Ralph imposed structure in that he started the sounds, established the initial tempo, and asserted the cymbal crash as the finale. He followed my tremolo (TEX AUT-FOLLOWER).

Ralph's Verbal Meanings. Immediately, Ralph said, "I had to add that, a little detail at the end," referring to the cymbal crash that finalized the improvisation. When asked what he liked the best about the piece, he gestured toward the cymbal (INTRA-P). He likened this instrument to the sound of a gong and associated it with China and Jackie Chan movies that he had seen.

While listening, Ralph indicated that there were many moments during the music when "we were really playing together" (INTER-P). He titled the piece "Thunder" and then suggested a further improvisation based on the sounds of a thunderstorm.

My Organization of the Musical Elements. I took cues from Ralph, including the starting tempo and subsequent changes (TEM AUT-FOLLOWER) and volume for the piece (VOL AUT-FOLLOWER). I also imitated his rhythms (RHY AUT-FOLLOWER). I launched a tremolo, which Ralph joined (TEX AUT-LEADER).

My original rhythmic figures were diverse (RHY VAR-VARIABLE) and my volume fluctuated throughout the piece (VOL VAR-VARIABLE).

My Verbal Meanings. In my notes about this session, I wrote

> The third improvisation was troublesome in some ways. As soon as we began playing, I became aware of some inherent difficulties. First, Ralph had the soprano glockenspiel, which made it difficult for us to establish or maintain eye contact (INTER-P). He had to hold it in place to prevent it from slipping on his lap. This meant that he had only one hand free to play it. The other both balanced the glockenspiel and held the agogos.
>
> I realized and regretted that had not given him ample time to explore the glockenspiel (INTRA-P); he had trouble allowing the mallet to bounce on the bars, and thus he produced what I believe was an unintentional mixture of muted and ringing tones.
>
> Ralph has demonstrated that he is capable of playing well-developed rhythmic phrases, yet he did not do so in this improvisation. I wonder if the melodic nature of the instrument and/or the physical demands of playing it influenced this aspect of the piece.
>
> The only time it felt as if we were connected was when our playing was [undifferentiated], as during the single, synchronous strikes and the merged tremolo at the end (INTER-P).
>
> This is the second time that Ralph has signaled the finale of the improvisation with a *sforzando* on the crash cymbal. Perhaps this feature is acquiring some significance (INTRA-P).

Improvisation #2c

Musical Description. Ralph played the bongos, tubano, and cymbal for this improvisation. He chose the doumbek

and the soprano glockenspiel for me to play. The piece was 1 minute and 35 seconds in length. Ralph said, "I'll make three beats and then we start."

The improvisation was organized into three parts. In Section 1, Ralph established a steady beat on the bongos, punctuated by single strikes on the tubano and cymbal. I played a repetitive rhythmic figure consisting of quarter and eighth notes. Ralph crashed on the cymbal to signal the start of the next section. Volume was stable at *forte*.

Section 2 was a brief segment during which I created four distinct melodic phrases on the glockenspiel in Phrygian mode and duple meter followed by four ascending *glissandi*. I used mostly repeated notes and scalar passages. Ralph "accompanied" me on the bongos with what appeared to be a syncopated motif that was only occasionally integrated with my pulse. He provided a second crash to indicate the transition to the final section. The *glissandi* and the crash were at a *fortissimo* dynamic level.

The last section began with Ralph playing the pulse lightly on the cymbal while I returned to my previous rhythmic figure on the doumbek. Ralph moved to the tubano and initiated a tremolo. We played a *crescendo* together,

and Ralph ended the improvisation with a single, *fortissimo* crash.

Ralph's Organization of the Musical Elements. As in previous improvisations, Ralph experimented with sounds and combinations of sounds throughout this piece (TIM VAR-VARIABLE, TEX VAR-VARIABLE) as well as with changes in the intensity of his playing (VOL VAR-VARIABLE). His rhythms were both glued to a steady pulse (RHY INT-FUSED) and separate from it (RHY INT-DIFFERENTIATED), depending on whether he was directing the outcome of the music or not. A cymbal crash once again took on significance for Ralph, both as a signal to change instruments and as the final climax of the piece (TIM AUT-LEADER).

Ralph's Verbal Meanings. After the last sound, Ralph announced, "The end." I asked him how he could tell it was the end, and he said, "This [cymbal] was last. I always do that...China...I like stuff that's from China. I like to watch China movies and they always got, they're hitting the thing [gong]."

We listened to the recording and the following conversation unfolded:

Ralph: I messed up right there.
Susan: You messed up? How do you know you messed up?
Ralph: Because it sound like crazy.
Susan: It's crazy? Let me hear that again.
Ralph: Here I did too.

Susan: Alright. Let me hear that again. Tell me when it's crazy.
Ralph: [over the music] Right here.
Susan: How do you know it's crazy?
Ralph: 'Cause the beat, it was, like, mixed. These three and a little bit of this mixed.
Susan: Mixed, meaning they were all playing at the same time?
Ralph: Like [inaudible] went together.
Susan: Uh-huh. And that was different from what was happening before? [Ralph nods affirmatively.] How was it different?
Ralph: It was, like [Ralph plays a rhythm on the drum.]
Susan: Uh-huh. Let's listen a little bit more, see if it gets crazy again. [Playback continues.] Is this crazy or not? [Ralph nods affirmatively.] Is it? [Playback continues.] What's happening here?
Ralph: Messing up.
Susan: Messing up? OK. [Susan stops the tape.] talk about messing up because I don't understand what that means.
Ralph: Like whenever I would start playing, it's not the same beat. You know how they drum, like, rap, they got it all, like, mixed, they all got that same beat. [plays series of eighth notes and quarter notes]
Susan: So is that what you were trying to do, was to try and do the same beat through the whole thing?
Ralph: Yeah.
Susan: Oh, I didn't realize that.
Ralph: But uh, I kind of messed up though. I got the beat and then I, like, missed some notes. (INTRA-P)

Ralph said he especially liked the finale of the piece (INTRA-P).

When asked how he felt playing all of the instruments at the same time, Ralph said that it was "cool" but hard because he had four instruments and only two hands. He said "you just guess" which instruments to play when (INTRA-P).

My Organization of the Musical Elements. In Section 1, I assumed the role of rhythmic ground, playing clearly-formulated rhythmic phrases with a steady pulse (PHR INT-INTEGRATED, RHY INT-FUSED). With respect to tempo and volume, there was shared autonomy in this piece. In Sections 1 and 3, Ralph determined the tempo and volume and I followed his lead (TEM AUT-FOLLOWER, VOL AUT-FOLLOWER). In Section 2, I established these elements on the glockenspiel (TEM AUT-LEADER, VOL AUT-LEADER), as well as the meter and phrase length, both of which Ralph resisted (MET AUT-LEADER, PHR AUT-LEADER). Melodies were clearly fused in the tonality (MEL INT-FUSED).

My Verbal Meanings. This piece caused me to wonder about Ralph's comfort level with my music (INTER-P). During the first section, it seemed as though Ralph was oblivious to my musical contributions (INTER-P). He did not really orient his playing to mine in any way, and he did not establish eye contact as he usually did during our duets (INTER-P). During Section 2, however, I noticed Ralph's eyes on me as I played the glockenspiel, and my sense was that the particular timbre, tonality, or manner in which I was playing had captured his attention and was somehow disconcerting to him (INTER-P). It was as if he attempted to align with my pulse and when he could not,

became frustrated and terminated the section prematurely with an abrupt cymbal crash (INTER-P).

Solo Referential

Improvisation #3a

Musical Description. This improvisation was based on "Sadness," which Ralph expressed during a conversation about his mother in our second session. Ralph played the rainstick, the alto metallophone with wire brushes and two kinds of mallets, one maraca, and the crash cymbal.

Ralph began this monothematic piece with eight strikes on the wooden box of the metallophone, with alternating strikes on the lowest bar (F) with the wire cymbal brush. He followed this with several slow, *pianissimo glissandi* up and down the length of the instrument. Ralph added the rainstick, tilting it several times. He abandoned the metallophone, asked for the maraca, shook it rhythmically at a *mezzo-piano* level, and then returned to sounding the rainstick.

Using a wooden mallet, Ralph played two strikes on each bar in a descending scale from top to bottom. He followed this with single strikes in an ascending scale on the beat. More *glissandi* followed, first with the wooden and then with the felt mallet. There was a *crescendo* as

the *glissandi* increased in tempo. A cymbal crash ended the piece.

Ralph established a consistent pulse only during the brief scalar passages on the metallphone. He did not form rhythmic figures, nor did he create melodies. Volume was mostly soft, except for the *crescendo* and crash at the end. Timbre and texture was highly variable. Tension was present only at the finale.

Ralph's Organization of the Musical Elements. Ralph's performance was different from previous improvisations in that he maintained a subdued volume for most of the piece (VOL VAR-STABLE). It was also unique in that Ralph did not sustain a consistent pulse or form rhythmic figures as had become his custom (RHY INT-DIFFERENTIATED). Typical, however, was his use of diverse timbres and playing configurations, including the tremolo-crash figure that prevailed in many of Ralph's creations (TIM VAR-VARIABLE, TEX VAR-VARIABLE). Tension was created by the volume of the tremolo and crash (VOL TEN-TENSE).

Ralph's Verbal Meanings. Immediately following the improvisation, Ralph pronounced, "That's the end, the end of my sadness" (INTRA-P). When asked how this piece differed from the other improvisations he had played, he

replied that it was quiet. We further dialogued about the music and its relationship to his feelings:

> Ralph: This rainstick I used, it sounds like rain and rain makes you sad and sad makes it rain. I wanted to mix it together. I thought it would be fun if I added the little instrument [] because, like, sad people like to yell and get mad at other people. So I'm taking my anger out on other things instead of, like, on the music instead of on myself.
> Susan: Hm-mm. I heard sad and I heard angry. Do those go together for you? When you feel sad do you also feel angry?
> Ralph: When you feel sad, like, you want to bash somebody. Because your mom, like, if your mom's sick, like mine. And you want to, like, go after somebody that made her sick. So you're made at that person and you're sad that your mom's sick.
> Susan: Uh-huh. So you have those mixed feelings. What in the music was the sad part?
> Ralph: The, uh, what do you call this again?
> Susan: The xylophone.
> Ralph: Yeah, the xylophone and the rainstick.
> Susan: Were there also parts that were angry?
> Ralph: Um...
> Susan: What did you do that sounded like anger?
> Ralph: Hit the, um, what is this called?
> Susan: The cymbal.
> Ralph: Yeah, the cymbal.
> Susan: At the very end, uh-huh. Where did the maracas fit in? The "ch-ch-ch?" What was that?
> Ralph: Like, I finally had to get my anger out with something, so instead of hitting the wall and making noise, I could make noise with that.
> Susan: Are you feeling like hitting the wall right now? [Ralph nods affirmatively.] But instead of doing that, you play on the instruments.
> Ralph: Uh-huh.
> Susan: So for you, is [improvising] music a way for you to express your feelings rather than doing something harmful? Is that what you're trying to tell me?
> Ralph: Hm-mm.

My Organization of the Musical Elements. In particular, I was drawn to Ralph's nontraditional use of the metallophone. He had never played the instrument before, and he used it quite expressively. He formed at least four distinct timbres on the metallophone and two on the rainstick (TIM VAR-VARIABLE). I was also struck by the soft, stable volume (VOL VAR-STABLE).

My Verbal Meanings. My immediate words after Ralph's finale were, "Alright. Wow. You did a lot of interesting things there" (INTRA-P). I was responding both to the varied timbres and playing configurations and to the uncharacteristic ways in which Ralph expressed himself, particularly the lack of rhythmic development and the tenderness conveyed in the subdued volume. He seemed to be playing in an intentional manner, carefully manipulating the music to represent his notion of the referent (INTRA-P). The sounds created in me a sense of serenity up to the tremolo (INTRA-P), at which point I predicted the concluding cymbal crash and experienced some anticipatory tension (INTRA-P). The ending seemed incongruous with the rest of the piece (INTRA-P).

Duet Referential

Ralph and I did not create any duet referential improvisations during our time together.

Appendix U

Musical and Verbal Data: Ralph

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. **Solo Nonreferential**	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Ralph – tambourine	Organized playing with distinct rhythmic figures that were grounded in a consistent pulse (RHY INT-INTEGRATED)		Smiled during and after the improvisation but did not comment on its meaning	
	Played rhythmic figures that were grouped into predictable phrases (PHR VAR-STABLE)		Said he thought the instrument made a "cool sound"	
b. Ralph - bongos, tubano, claves, cymbal	Played a series of climaxes followed by immediate decreases of sound mass and tempo (VOL TEN-CYCLIC, TEM TEN-CYCLIC)		Said, "I was just messing around"	
	Fused rhythmic figures in Section 1 (RHY INT-FUSED)		Replied that it felt "fun and cool"	
	Occasionally aligned subdivisions in Sections 2 and 3 with a pulse (RHY INT-DIFFERENTIATED)		Explained that the instruments caused him to think about China and movies that he had seen	
	Exhibited freedom in his use of dynamics (VOL VAR-VARIABLE)		Indicated that it felt different to play loud versus soft music	
			Said, "Talking [playing softly] is not as nerve-wracking as yelling [playing loudly]. That's all I've got to say	
2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Ralph - tubano, cymbal Susan – djembe	Used multiple timbres and textures in this piece (TIM VAR-VARIABLE, TEX VAR-VARIABLE)	Took the lead by initiating the tremolo (TEX AUT-LEADER) and dictating the ending with the cymbal crash	Described the experience as "OK"	Said he was not aware of my playing, but was wrapped up in his own music
	Did not consistently relate subdivisions to		Said he liked the beat because he was	

	the beat (RHY INT-OVERDIFFERENTIATED)		playing in a way that reminded him of rap music	
	Created phrases that were symmetrical and repetitive (PHR VAR-STABLE)		Indicated he was trying to find a steady beat on his drum	
	Did not significantly change the intensity of his playing (VOL VAR-STABLE)		Liked the middle the best because he enjoyed playing a drum roll leading up to a crash	
	Did not change tempo significantly (TEM VAR-STABLE)			
b. Ralph - agogo, glockenspiel, cymbal Susan - cabasa, tubano	Did not vary volume (VOL VAR-STABLE)	Followed my tremolo (TEX AUT-FOLLOWER)	Immediately said, "I had to add that, a little detail at the end" [cymbal crash]	Indicated there were many moments during the music when "we were really playing together"
	Used a variety of timbres (TIM VAR-VARIABLE)		Gestured toward the cymbal when asked what he liked best about the piece	
	Created diverse rhythms in many different tempi (RHY VAR-VARIABLE, TEM VAR-VARIABLE)			
c. Ralph - bongos, tubano, cymbal Susan – doumbek, glockenspiel	Experimented with sounds and combinations of sounds (TIM VAR-VARIABLE, TEX VAR-VARIABLE)	Signaled the final climax of the piece with the cymbal crash (TIM AUT-LEADER)	Announced, "The end"	
	Experimented with changes in intensity (VOL VAR-VARIABLE)		Thought he messed up repeatedly	
	Glued his rhythms to a steady pulse (RHY INT-FUSED)		Stated he was attempting to play the same beat through the entire improvisation	
	Separated his rhythms from the pulse (RHY INT-DIFFERENTIATED)		Said he especially liked the finale	
			Stated that playing all of the instruments was "cool" but hard because he didn't have enough hands	

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal

a. Ralph - rainstick, metallophone, maraca, cymbal ("Sadness")	Maintained a subdued volume for most of the piece (VOL VAR-STABLE)		Immediately stated, "That's the end, the end of my sadness"	
	Did not sustain a consistent pulse or form rhythmic figures as had become his custom (RHY INT-DIFFERENTIATED)		Said, "I'm taking my anger out on the music instead of on myself"	
	Used diverse timbres and playing configurations (TIM VAR-VARIABLE, TEX VAR-VARIABLE)		Said, "When you feel sad you want to bash somebody"	
			Used the metallophone and the rainstick to represent the sadness	
			Used the cymbal and maraca to represent the anger	

4. Duet Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
RALPH DID NOT PLAY ANY DUET REFERENTIAL IMPROVISATIONS				

Appendix V

Musical and Verbal Data: Susan (Ralph)

	INTRAMUSICAL Not Verbalized	INTERMUSICAL Not Verbalized	INTRAPERSONAL Verbalized	INTERPERSONAL Verbalized
1. Solo Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Ralph - tambourine	Was drawn to the clarity and symmetry of Ralph's rhythmic expressions (RHY INT-INTEGRATED, PHR VAR-STABLE)		Was eager to hear what Ralph was capable of creating	
			Was pleased that Ralph's cognitive delays were not manifested in difficulty with organizing his sounds into perceptible forms	
b. Ralph - bongos, tubano, claves, cymbal	Found meaning in manner in which Ralph integrated elements to produce build up and release of tension (TEM TEN-CYCLIC, TEX TEN-CYCLIC, VOL TEN-CYCLIC)		Told Ralph I heard this as a "very well-formed improvisation with a lot of exciting moments"	
	Noted that he capitalized on the timbre of each instrument (TIM VAR-VARIABLE)		Was impressed with the expressivity in this solo piece	
			Was pleased with the confident manner in which Ralph played, given his self-degrading comments	

2. Duet Nonreferential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Ralph - tubano, cymbal Susan- djembe		Allowed Ralph to determine rhythmic content and form (RHY AUT-DEPENDENT)	Found this piece disconcerting to play and hear	Synchronized with Ralph on the tremolo as a way to feel more connected to the music and to him
		Allowed Ralph to determine texture (TEX AUT-	Struggled to find spaces in which to sound my instrument	Felt nonessential and awkward in this duet

		DEPENDENT	and be heard	
		Allowed Ralph to determine intensity (VOL AUT-DEPENDENT) and changes therein		
		Acknowledged his control over the ending of the piece [cymbal crash]		
b. Ralph - agogo, glockenspiel cymbal Susan - cabasa, tubano	Played diverse rhythmic figures initially (RHY VAR-VARIABLE)	Took cues from Ralph for starting tempo and subsequent changes (TEM AUT-FOLLOWER)	Regretted that I had not given him ample time to explore the glockenspiel	Realized that Ralph's instrument choice prohibited eye contact
	Fluctuated my volume (VOL VAR-VARIABLE)	Took cues for volume (VOL AUT-FOLLOWER)	Wondered if the melodic nature of the instrument and/or the physical demands of playing it contributed to the lack of well-developed rhythmic phrases	Felt connected only during synchronous strikes and merged tremolo at the end
		Imitated Ralph's rhythms (RHY AUT-FOLLOWER)	Speculated that the ending cymbal crash is acquiring some significance	
		Launched a tremolo which Ralph joined (TEX AUT-LEADER)		
c. Ralph - bongos, tubano, cymbal Susan - doumbek, glockenspiel	Played clearly-formulated rhythmic phrases with a steady pulse (PHR INT-INTEGRATED, RHY INT-FUSED)	Followed Ralph's lead for tempo and volume in Sections 1 and 3 (TEM AUT-FOLLOWER, VOL AUT-FOLLOWER)		Wondered about Ralph's comfort level with my music
	Played melodies that were fused to the tonality (MEL INT-FUSED)	Established tempo and volume in Section 2 (TEM AUT-LEADER, VOL AUT-LEADER)		Thought that Ralph seemed oblivious to my musical contributions in Section 1
	Fused my melodies with the tonality (MEL INT-FUSED)	Established meter and phrase length in Section 2)MET AUT-LEADER, PHR AUT-LEADER)		Sensed that my playing in Section 2 had captured Ralph's attention and was disconcerting to him
				Thought that Ralph terminated Section 2 early because he was frustrated with not being able to align with my pulse

3. Solo Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
a. Ralph -	Was drawn to Ralph's		Immediately said, "Alright. Wow. You	

rainstick, metallophone maraca, cymbal ("Sadness")	nontraditional use of the metallophone on which he formed at least four distinct timbres (TIM VAR-VARIABLE)		did a lot of interesting things there" [in response to varied timbres and textures and the uncharacteristic features of the piece]	
	Was struck by the soft, stable volume (VOL VAR-STABLE)		Thought that Ralph was playing in an intentional manner, carefully manipulating the music to represent the referent	
			Felt a sense of serenity up to the tremolo	
			Experienced anticipatory tension ([cymbal crash]	
			Thought the ending seemed incongruous with the rest of the piece	

4. Duet Referential	Intramusical	Intermusical	Intrapersonal	Interpersonal
RALPH DID NOT PLAY ANY DUET REFERENTIAL IMPROVISATIONS				

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