Resolving dissonance: how experiences of flow of live music performance facilitate dedifferentiation and impact the subject well-being of young adults

Amanda N. Sposato

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ABSTRACT

This mixed methods study sought to explore how experiencing a state of flow, or optimal enjoyment, while performing live music impacted the subjective well-being of young adults. Live music performance serves as a space of transgressive eroticism, which is necessary to facilitate dedifferentiation, an intrapsychic state developmental and relational state of merger where new ego growth occurs.

67 young adults (18-35 years of age) who had performed live music in the past year completed an anonymous online survey consisting of an empirical assessment of the convergence of flow and well-being utilizing the Flow State Scale (Jackson & Marsh, 1996), Scale of Positive and Negative Affect (SPANE) (Diener et al., 2010), Flourishing Scale (Diener et al., 2010), and Clinically Useful Depression Outcome Scale (CUDOS) (Zimmerman et al., 2008). Participants were also asked a series of qualitative questions about the quality of their flow experiences and impact on their subjective well-being.

This study found evidence that the process of dedifferentiation occurs during flow state experiences, making experiences of flow (and, by proxy, dedifferentiation) spaces of psychic growth leading to intrapsychic development and improved functioning. Future research into the utilization of flow experiences as a transcendent function facilitating dedifferentiation has implications for the treatment of survivors of trauma as well as those young adults experiencing clinically significant levels of depression and anxiety.
RESOLVING DISSONANCE: HOW EXPERIENCES OF FLOW IN LIVE MUSIC PERFORMANCE FACILITATE DEDIFFERENTIATION AND IMPACT THE SUBJECTIVE WELL-BEING OF YOUNG ADULTS

A project based upon an independent investigation, submitted in partial fulfillment of the requirements for the degree of Master of Social Work.

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Answering an interview question about the "rhythm-sound" of her most recently published book of poetry, Gjertrud Schnackenberg referenced Yeats stating "punctuation [as a location of silence] is one of the most emotional instruments poets have." While I am no poet, I have come to appreciate those moments of punctuation throughout this writing process: places where I have been able to pause and reflect both on my writing and on those whom I was missing by virtue of being engaged in the process of writing. Truly, I could not imagine completing this without their compassionate wisdom, wry affirmations, and quixotic belief in my ability to, eventually, reach the end of a phrase.

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CHAPTER I
Introduction

Imagine you are deeply engaged in an activity such as knitting a hat, playing in a basketball game, programming computer code, or playing an instrument. The activity is something you have done before so you feel at least somewhat skilled at it. Imagine that you have spent time practicing or training for this activity and you feel a bond to this activity, that there is a comfort in its familiarity. Now, imagine you are given a new challenge to complete: perhaps a new pattern and request for a hat to be finished by the end of the weekend, a starting position in the championship game, entry in a coding competition, or performing on-stage for a community benefit. The task you are given is not so easy as to cause a feeling of boredom nor is it so hard that the only thing you can feel is overwhelming anxiety, panic, or avoidance. In fact, while the task you have been handed poses some degree of challenge, it feels very achievable given your skills and familiarity with your activity.

You engage yourself in the task. The more you engage, the more you start to enjoy yourself. As you continue your participation, your enjoyment increases and you begin to have an awareness that everything but the activity you are engaged in seems to fade away from your mind. The conversation you had been replaying in your head goes silent, the stress you were feeling about making a deadline seemingly dissolves, and any anxiety you were feeling about taking on this challenge evaporates. Instead, you feel intensely present. You feel like all of your senses are engaged and you are simultaneously on "auto-pilot" and in total control of every move...
you make. You are in the exact spot to intercept every throw, you do not drop a single stitch or forget a single count, the code is coming to you without pause, and you are not playing a single note out of place nor out of tune. You feel completely connected to and absorbed by the moment. At some point, the challenge ends and you become aware that time passed without your knowledge and that you feel overwhelmingly positive about your involvement with the challenge, regardless of the outcome. The state of total enjoyment you just experienced (and which nearly every person can recall experiencing at least once in their lifetime) is called flow.

Flow is the name given by Mihaly Csikszentmihalyi to describe a multi-faceted and transcendent experience characterized by a collection of sensory and perceptual intrapsychic phenomenon. Csikszentmihaly, one of the founders of Positive Psychology and expert on flow state experiences, initially conceptualized the experience of flow in his book Beyond Boredom and Anxiety (1975) as the “holistic sensation that people feel when they act with total involvement” (p. 36). What one might experience if they were in a flow state is:

“full engagement, control, concentration and action awareness, occurring during an activity perceived as highly self-rewarding and characterized by clear goals, unambiguous feedback, distortion of time perception, loss of self-consciousness and a balance between challenges and skills required to best perform it” (Chirico, Serino, Cipresso, Gaggioli, & Riva, 2015, p. 2).

The flow experience has been explored initially as an occurrence appearing during sports activities but has since branched out to sundry task-related activities including its use in the therapeutic session (see: Landry, 2015) and its interplay with music. This mixed methods study hopes to explore and examine the impact and underlying intrapsychic process of flow experiences in the context of musical performance.
But, what exactly is happening during a flow state that allows for the alteration of perceptual experience and the experience of total enjoyment? Because people experiencing flow or a flow experience are frequently described in the literature as experiencing a state of total absorption, total concentration, or total enjoyment (among other characteristics), it is my hypothesis that the relational developmental process of dedifferentiation, operationally defined as a sense of merger, union, or oneness experienced with another, is occurring during a flow state. Dedifferentiation is an object-relational intrapsychic area of transformative ego growth. Dedifferentiation, as well as the state of flow, is attributed to reductions in depression and anxiety as well as increases in creativity and overall sense of well-being.

This mixed methods study has two aims: (1) This study seeks to determine if experiences of flow impact the subjective personal well-being of emerging and young adults (defined as ages 18-35) and (2) this study seeks to theoretically conceptualize the flow experience as an object relational state of dedifferentiation where musical performance serves as a transcendent function (see: Jung’s body of work) to help people alleviate negative affective states and experience an increased sense of personal well-being.

**Music in Social Work Practice**

If flow states can occur in any task-based activity with the right mixture of challenge and skills, then why examine flow in the context of music? Music, Meghan Hinman (2013) writes, “mimics the human experience” (p. 146). There is universality to music, which lends itself to the needs of many while retaining the nuance necessary to engage an individual. Music is also intrinsic to our human experience. Robarts (1994) describes a type of music- the vocalized sound between mothers and babies- as an “early musical introject”. This early co-creation of music serves an important function to early relating.
Music is also a central location of expressing, interpreting, and experiencing emotion, especially for those who are performing for others. Neuroscientist Oliver Sacks explored our enduring connection to and love affair with music in his 2007 book *Musicophilia*. In an interview with "Browsings, the Harper's Magazine Blog" (Horton, 2009) about *Musicophilia*, Sacks spoke to the importance of music from a developmental standpoint:

"Although a teaspoon of Mozart may or may not make a child a better mathematician, there is little doubt that regular exposure to music, and especially active participation in music, may stimulate development of many different areas of the brain…[i]n terms of brain development, musical performance is every bit as important educationally as reading or writing".

Music does not simply convey a musical narrative but encompasses the individual emotionality of the performer, which is then conveyed through the performance. Music, simply stated, is a medium through which we can know another.

However, music also does more than allow a multidimensional conceptualization of another. Learning and performing music has been repeatedly found to have a profound impact on cognitive, emotional, and social development in children and young adults. Neurocognitively, active engagement with music “can induce cortical reorganization” (Hallam, 2010, p. 270) which can in turn functionally shift the manner in which the brain processes information. The generative and regenerative effects of music have also been found to profoundly improve the functioning of adults, especially adults with neurological disorders such as various forms of dementia or Parkinson's disease (Sacks, 2007). Music, and specifically music therapy, has the ability to intersect with physical, psychological, or cognitive processes and to improve or address issues of communication and trauma (Maddick, 2011, p. 132).
As a clinical social worker and clinician actively utilizing music in individual psychotherapeutic sessions, Hinman (2013) addressed the use of music in therapeutic settings with to engage clients around queer sexuality as something which:

“helps my clients feel more grounded and connected to themselves. It gives them a means of expressing the emotions and experiences that they do not have words for. Sometimes, using music can be frightening- a step outside the comfort zone- but often my clients experience it as nurturing, empowering, and profound in its ability to facilitate intimacy and rapport” (p. 146).

If music can provide so many benefits on its own, then the additional absorption and enjoyment of a flow state experience could only seek to enhance its therapeutic efficacy.

How then, can music benefit social work practice (especially clinical social work practice)? Music therapy, a type of expressive arts therapy, “is differentiated from musical entertainment/recreation by its capacity to address therapeutic goals. The capacity of music therapy to effect change provides a non-traditional means of externalizing and working through the social and emotional issues that arise” (Maddick, 2011, p. 132). Music therapy has been used in the treatment of depression, anxiety, everyday stress, phase of life and identity work, empowerment and self-esteem building, and in the treatment of sundry types of trauma such as that of female survivors of intimate partner violence (Juan, 2016). Music has also been used as a means of more easily facilitating altered states of consciousness such as mindfulness which can increase the therapeutic efficacy of multimodal work with clients who are so disorganized that they are not able to track and process verbally (Haerlin, 1998). It is the “bodily engagement” (Hinman, 2013, p. 146) of music that serves as a place of repair and growth.
Exploratory uses of music in social work practice are an almost entirely neglected field of research. Michelle Lefevre (2004), in looking for ways to symbolically communicate with child clients, found that “[A]lthough there exists a flourishing music therapy literature, it did not appear to have informed and enriched direct social work practice in the way that play and other creative arts therapies had” (p. 334-335). Her exploratory research into utilizing music and music-making in clinical practice with children, led her to assert, “musical instruments and techniques can usefully be introduced into direct work…as a further ‘tool’ alongside other symbolic and creative media” (Lefevre, 2004, p. 342). And, yet, in the twelve years since her article’s publication, there remains a dearth of information on the intersection of social work practice (specifically clinical social work practice) and the use of music or music therapy techniques.

In order for social workers to use music effectively in clinical practice, “it is important to connect with the idea of music as an essential aspect of the human experience” (Hinman, 2013, p.147). Music, as previously stated, is both universally generalizable and individually experienced. My interest in the use of musical performance as a vehicle to facilitate flow state experiences comes from my years of learning, listening to, and performing music. The first time I recall music capturing me was in an early elementary school music class. The moderately-sized midwestern town I grew up in was known in the state as having some of the best music programming in any public school system. Music education started early; music was a required “special” class (alongside physical education, art, and “library”) one to two times per week. It was in this music class in either kindergarten or first grade where I first felt transformed by music. It was in early fall and the teacher projected on to a white screen a filmstrip of cartoon skeletons dancing around a comically eerie graveyard. As they danced around the screen in
celebration of Halloween, the teacher played a recording of Camille Saint-Seans’ “Danse Macbre”. The cresting musical phrases aligned with the skeletons’ merriment. Something inside of my six-year-old self lit up as this association of a piece of classical music with a modern cartoon opened new pathways of understanding and connection within me. In that moment, I was absorbed, transfixed, and wholly transformed. Music has been a pivotal element in my life both in the way I understand myself and my relationship to the world as well as a source of joy, connection, and comfort. This study is, in one way, an attempt to quantify and qualify what happened that day the skeletons danced. And, this study is also an attempt to explore and explain what about music and, specifically, musical performance entrances people every day.
CHAPTER II

Literature Review

This section will seek to further define the concept of flow and the flow state experience, review the relevant literature linking flow to subjective well-being as well as to live music performance, and exploring how these three converge in the experiences of young adults. Because these themes are all well-researched across a broad variety of fields, disciplines, and applications, the scope of the literature presented will be reduced accordingly to be inclusive of that relevant to this study’s empirical hypotheses and theoretical basis.

In addition to a review of the research on the aforementioned topics, this study will also attempt to phenomenologically explore what is occurring during a flow state experience. As such, several sections of this review will be devoted to a theoretical examination of the psychology of a flow state experience with the argument that the process occurring during an experience of a flow state, which makes it both an “optimal experience” and a tentatively relevant contributor toward an increased sense of subjective well-being, is the process of dedifferentiation, a relational and developmental dismantling of existing rigid ego structures which, in turn, allows for generative intrapsychic growth.

Flow

Researcher Mihaly Csikszentmihalyi is widely considered one of the first and most prolific researchers on the flow state experience. In his book *Flow: The Psychology of Optimal Experience*, Csikszentmihalyi (1990) sought to amalgamate “decades of research on the positive aspects of human experience – joy, creativity, the process of total involvement with life” (p. xi) into what he termed *flow*. A flow experience, as defined by Csikszentmihalyi (1990), is a state
of optimal experience where “attention can be freely invested to achieve a person’s goals, because there is no disorder to straighten out, no threat for the self to defend against” (p. 40). In his early research, he interviewed participants determined to have a high level of talent and, from these narrative responses, conceptualized flow as a state of complete focus, concentration, and absorption in the activity at hand (Csikszentmihalyi, 1975). Presently, flow is operationally defined as a state occurring during a flow activity where both the challenge of the activity and the skills needed to meet the challenge are high enough to create the conditions for an optimal experience of enjoyment (Csikszentmihalyi, 1990; Ainley, Enger, & Kennedy, 2008). And, while the research near universally agrees on these conceptualizations of a flow state experience, the way flow is further delineated, elucidated, or theorized varies dependent upon researcher, field of research, and flow activity (Ainley et al., 2008).

Because of the phenomenological, ephemeral, and amorphously subjective nature of a flow state experience, more precise and delineated definitions of what comprises ‘flow’ remain elusive. A meta-review of literature on the intersection of flow experience and subjective well-being found that the description of a flow experience was similar across disciplines and fields of research; this meta-review additionally identified a “cultural universality” (Nistor, 2011, p. 63) to flow experiences as similarly described across cultures.

In general, Mihaly Csikszentmihalyi’s definition of flow as an optimal experience is considered the “expert opinion in the field” (Nistor, 2011) and the primary launching pad for an exploration of how, exactly, to describe and/or define a flow experience. Csikszentmihalyi (1990) further defined flow as a collection of nine conceptual constructs, some of them conditions for flow and some of them characteristics resulting from the experience of flow. The following are conditions that converge to allow a flow state to occur:
• Challenge-Skill Balance: This is achieved when one is engaged in an activity which is challenging enough or slightly more challenging than the skill set of the participant. If the activity is not challenging enough for the skill set, boredom will occur. If the activity is too challenging for the skill set, anxiety will predominate.

• Clear Goals: This refers to the participants delineation of what they are hoping to accomplish and what personal values they will engage toward that end (Csikszentmihalyi, 1990).

• Unambiguous Feedback: This is symbolic information obtained during the activity that allows the participant to know they are achieving their goals (Csikszentmihalyi, 1990).

The remaining phenomenon are considered characteristics resulting from being in flow, which also converge to help serve as a set of criteria determining flow:

• Concentration: This has been considered alternately a condition for flow as well as a characteristic of a flow state. Total absorption in the activity is central to a flow experience.

• Loss of Self-Consciousness: Csikszentmihalyi (1990) described this characteristic as occurring when “an activity is thoroughly engrossing [and] there is not enough attention left over to allow a person to consider either the past or the future” (p. 62).

• Sense of Control: Originally called the “paradox of control”, this refers to the participant feeling as though they have a sense of control or are “lacking a sense of worry about losing control” (Csikszentmihalyi, 1990, p. 59).
• Transformation of the Perception of Time: Although Csikszentmihalyi (1990) describes the experience of time not passing as it typically does as one of the most common manifestations of flow.

• ‘Autotelic Experience’: An autotelic experience is one of optimal enjoyment; it involves participating in flow for the enjoyment of being in flow.

In addition to these nine categorical dimensions, flow has been described as a holistic sensation (Fritz & Avsec, 2007), a heightened state of motivation and sustained task engagement (Ainley et al., 2008), an “intensely rewarding psychological state” (Srinivasan & Gingras, 2014, p. 608), “an almost automatic, effortless, yet highly focused state of consciousness” (Csikszentmihalyi, 1996, p. 110), and a space where “emergent motivation” (Heller, Bullerjahn, & von Georgi, 2015, p. 1906) occurs.

Initial research into flow state experiences centered around qualitative or exploratory subjective reports of individual experiences. Hoffman and Novak (1996) identified the three primary means of studying flow as administering retroactive surveys to activity participants and asking them to rate their experiences (activity surveys), requesting participants to provide a narrative description of their flow experience retroactively (narrative surveys), and beeping participants at random and asking them to record ratings for their current activity on a scale measure (experience sampling). Jackson and Marsh (1996) integrated a plethora of these qualitative findings into a collection of descriptive questions fitting Csikszentmihalyi’s nine multidimensional constructs of flow, creating nine quantitative subscales, each encapsulating one construct; these nine subscales were then integrated into one overarching empirical measure: The Flow State Scale. And, although their original Flow State Scale was constructed to empirically measure experiences of peak performance in athletes, it and other empirically
constructed measures of the flow experience have been used over a range of fields and disciplines over time; as of a recent review of the literature on flow experience, no standardized or universal measure of flow exists (Nistor, 2011).

Instead, research conducted on flow state experiences tends to focus on one of the initial nine multidimensional constructs, developing a method of verifying and quantifying flow experiences, or studying potentials for inducing flow states. Findings about flow state experiences tend to vary in their consistency between methods, domains, and type of participants sampled. One reason often cited for this is the difficulty the empirical study of flow creates in relation to measures of reliability or validity (Fritz & Avsec, 2007); because flow is a phenomenological experience of which the participant is said to be completely absorbed by, interrupting a flow state to collect data terminates the experience while post hoc measures rely on the subjective reporting of the participant having been in flow, which does not always correlate with the empirical measurements assessing flow (Wrigley & Emmerson, 2013).

Despite this, some results have been consistently generated across disciplines and activities. Several studies have found that demographic factors including age, gender identity, and cultural background have no statistically significant impact on the experience of flow (Heller, Bullerjahn, & von Georgi, 2015).

In addition, one “consistent” hallmark of flow state research is its inconsistency around which of the nine subscale categories most directly correlates to an experience of flow. Findings of research examining flow state experiences have found only mild to moderate agreement about which of the nine multidimensional constructs are most integral to the experience. Of these nine constructs of a flow state experience, Nistor (2011) reports that “the most invoked and studied dimension of flow is skills-challenge balance” (p. 63).
Flow’s importance to Csikszentmihalyi (1990) was its ability to make the “present instant more enjoyable, and because it builds the self-confidence that allows us to develop skills and make significant contributions to humankind” (p. 42). This accounts for its boom in popularity amongst researchers in performance-related fields (e.g., sports, theatre, computer usage, education, etc.). Flow has also been studied in the field of music, a field which, while the flow state experience has been studied in a variety of settings, including task- and performance-related activities, the experience of flow in live music performance “has remained almost entirely unexamined” (Wrigley & Emmerson, 2013).

Musical Performance as a Flow Activity

Music, and specifically musical performance, is uniquely positioned to produce experiences of flow as it is has been found to be an a domain which stimulates peak performance (Lowis & Touchin, 2002) as well as a phenomenon for which people have an innate sense of what Oliver Sacks (2007) termed “musicophilia”, of internal, intrinsic connection. Much of our connection to music transcends cultural, circumstantial, or even linguistic factors. In his book exploring our neurocognitive relationship to music, Oliver Sacks (2007) writes:

“William James referred to our “susceptibility to music,” and while music can affect all of us- calm us, animate us, comfort us, thrill us, or serve to organize and synchronize us at work or play- it may be especially powerful and have great therapeutic potential” (p. xii).

And, while flow state experiences have been researched in relation to various aspects of music, very little research has been conducted on flow states during live music performance.

Wrigley and Emmerson (2013) were the one of first researchers to assess for the experience of flow during live music performance. They administered the Flow State Scale-2 to
236 students enrolled in either undergraduate or postgraduate music programs to assess for flow following a performance which resulted in the first confirmation of the reliability and validity of the Flow State Scale-2 (FSS-2) to assess for flow experiences in live music performance (Wrigley & Emmerson, 2013).

Similarly, researchers Fritz and Avsec (2007) administered the shortened Dispositional Flow Scale to students as well as two other scales quantifying positive affectivity in an attempt to correlate flow experiences of students with increases in positive well-being. What they found was that, because flow itself is termed as an optimal enjoyment experience, where flow provides positive emotions, “the state of flow is predominantly, but not exclusively, an emotional state” (Fritz & Avsec, 2007). Interestingly, Fritz & Avsec (2007) also noted that flow state experiences appeared to happen with more frequency for those students participating in ensemble musical performance such as orchestra or chorus versus solo performance; they attributed this to “responsibility dispersion” (p. 11). And, although the volume of research on flow state experiences across many disciplines is extensive and unable to be encapsulated within the scope of this study, no other literature cited for this review noted a similar distinction between group and individual activity engagement as a predictor for experiences of flow.

Flow Experiences and Subjective Well-being

While flow itself both is and leads to optimal, enjoyable experiences, it is not defined as “happiness”. Happiness, as a construct, has been notoriously difficult to measure (see: Diener’s body of work). Instead early researchers in the field of Positive Psychology have worked to codify the complex and subjectively abstract feeling-state regarded as happiness into a more universally constant and measurable construct. Happiness as a paradigm was described as having three primary attributes: that it is subjective, it includes measures of positive aspects, and that it
includes a global evaluation of all domains in a person’s life (Nistor, 2011, p.60). Kesebir and Diener (2009), noting that happiness was not easy to quantify nor even define, proposed instead that positive affectivity and well-being be measured by a construct they developed called Subjective well-being (SWB).

Subjective well-being (SWB), as defined by Diener et al. (2010), is both a trait and a state and, as such, is available for modification and enhancement. A plethora of research on variables influencing subjective well-being include heritability and personality as fixed components (Lucas & Diener, 2009), interpersonal relationships and social contacts (Diener, 2009), neuroticism and the interplay of environmental factors (Okun & George, 1984), and correlations to the “Big-5” personality factors (Lucas & Diener, 2009).

Research conducted by Ryan and Deci (2000) has likened the flow state experience to “a eudaimonic experience of wellbeing, in which human growth and potential are emphasized” (Wrigley & Emmerson, 2013, p. 303). Research has consistently found null-to-positive correlations between flow state experiences and an overall increase in feelings of happiness or positivity; this mixed bag of results inspired Nistor (2011), in her review of research devoted to flow states and subjective well-being, to caution readers about their interpretation of positive correlational findings. However, research has shown that, despite many psycho-emotional-experiential overlaps with dissociation and dissociative states, feelings of enjoyment predominate and enhance positive affective states when in flow whereas dissociation serves as a locus of psychological refuge from negative affective states (Wanner et al., 2006).

Csikszentmihalyi (1990) enthusiastically championed subjective experience as “not just one of the dimensions of life, it is [sic] life itself” (p.192). While he acknowledges the impact of circumstantial, cultural, and developmental factors on a person’s ability to cognitively reframe
the narratives of their experiences, he also attributes to them no bearing on the complexity of how individuals tolerate and work with stress:

“Why are some people weakened by stress, while others gain strength from it? Basically the answer is simple: those who know how to transform a hopeless situation into a new flow activity that can be controlled will be able to enjoy themselves, and emerge stronger from the ordeal” (Csikszentmihalyi, 1990, p.203).

He then went on to delineate three categories of coping he viewed as responsible for the transformation of stress and chaos into pleasure and strength: (1) unconscious self-assurance (one does not feel tension from or opposition with her environment), (2) focusing attention on the world (one spends little time thinking about himself), and (3) the discovery of new solutions (when one has achieved the first two steps, novel solutions to obstacles will automatically present themselves) (Csikszentmihalyi, 1990).

Despite its unclear impact on subjective well-being, flow state experiences have demonstrably shown to decrease levels of stress. A transactional stress-model introduced by Peifer, Schulz, Schächinger, Baumann, and Antoni (2014) assessed the experience of stress (defined by Lazarus and Folkman (1984)) as a challenge or demand exceeding the available skills to meet the demand) in relationship to flow. In order to do this, the researchers induced physiological states of stress in research participants prior to participant engagement in an activity designed to induce flow. Flow states cannot directly be induced, but they can be facilitated (Wrigley & Emerson, 2013) and those participants who achieved flow had measurably lower cortisol levels following a flow state experience (Peifer et. al, 2014). Csikszentmihalyi (1990) described this decrease in stress in the language of Positive Psychology: “[W]hen a person’s psychic energy coalesces into a life theme, consciousness achieves harmony” (p. 230).
Subjective Well-Being and Identity Development in Emerging and Young Adults

Emerging and young adulthood, as categorized by Jeffrey Arnett (2000), consists of the period of identity development and integration occurring between the ages of 18 and 40 where individuals between the ages of 18 and 30 are considered “emerging adults” and individuals in their 30s are considered “young adults”. Arnett (2000) characterizes the distinction between emerging and young adulthoods as dependent upon two factors: (1) emerging adulthood is a transitional period to young adulthood where the emphasis on development centers becoming a self-sufficient person and (2) emerging adults rarely view themselves as “adult” while young adults more readily ascribe to adult status.

Despite these distinctions in developmental tasks, increasing a sense of personal well-being is paramount. Deci and Ryan (1991) utilized Self-Determination theory to derive a hypothesis that the satisfaction of basic psychological needs, defined as nutriments, directly correlates to a positive subjective sense of well-being. Through multiple studies, they delineated three nutriments- the needs for autonomy, competence, and relatedness-, which are essential to continued experiences of subjective well-being and personal growth (Deci & Ryan, 1991). In order to facilitate growth, setting and achieving intrinsic motivational goals which center around meeting these three nutriments have been shown to directly correlate to an enhancement of personal well-being as well as to personality integration (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000).

Because identity development has become an increasingly individually determined and self-directed task in recent years, the rates of mental illness, including depression and anxiety, have significantly and noticeably increased in emerging and young adults (Schwartz et al., 2015). Personality integration, more commonly understood as Erikson’s (1950) developmental stage of
Identity Synthesis, is integral for continued experiences of subjective well-being and personal growth. And, although increases in personal well-being have been empirically shown to characterize the stages of emerging and young adulthood, finding means of assisting in the facilitation of identity development and personality integration remain crucial for ensuring emerging and young adults are able to handle the stressors and needs of adult life (Schwartz et. al., 2015).

The impact of flow state experiences on the personal well-being or identity development of emerging and young adults is an area of incomplete research where few of the results are generalizable outside of the particular task or activity the studies were designed to track. Some research has attempted to correlate proneness for experiences of flow with personality factors including extraversion, motivation (Heller et al., 2015), and novelty-seeking (Teng, 2011). After studying people who had repeated flow state experiences, Czikszentmihalyi (1990) noted that person who had repeated flow state experiences appeared increasingly differentiated following each flow state experience; he attributed this as a resultant of people overcoming a challenge and, therefore, “feeling more capable” (p.41). Due to this gap in the literature, this study theoretically posits that a flow state is a transcendent function where dedifferentiation is occurring, resulting in a self that “becomes more complex as a result of experiencing flow” (Csikszentmihalyi, 1990, p.42) and through which emerging and young adults could experience consistent and necessary advances in identity development, personality integration, and subjective well-being.
Dedifferentiation and Flow

Current and Historical Conceptualizations of Dedifferentiation

Dedifferentiation is a relational, developmental and psychoanalytic concept characterized by powerful and transcendent experiences of ego states in flux and demarcated by a “particular variant of destructiveness that undoes difference and softens separateness” (Saketopoulou, 2015, p. 631). Dedifferentiation is distinct from that of un-differentiation, as a developmental construct: differentiation must have already occurred (or be intermittently occurring as these states are not always linear) before one can experience their separate self as once again merged with another. Additionally, experiences of this powerful ego state are theorized to result in increased differentiation, individuation, and integration (Rundel, 2015). Psychologically entering into a state of dedifferentiation relies upon the phenomenological dissolution of subject-object demarcation occurring in co-constructed connection with an object. But, rather than being a space which exists between, outside of, or independent of its component producers, dedifferentiation is a movement toward merger or union, where the occurrence of “ego shattering” (Saketoupolou, 2015) precedes heralds an experience of oneness, wholeness, or infiniteness (Bonovitz, 2004; Stein, 2008; Rundel, 2015). The result of this experience of concurrent expansion and absorption has most recently been conceptualized as a space of radical intrapsychic change culminating in generative, creative, and transformative psychic growth (Rundel, 2015; Saketopoulou, 2014, 2015).

Research on the potential benefits of experiencing a dedifferentiated state have only recently begun to validate it as a potential space of positive transcendent transformation. The theoretical conceptualization of dedifferentiation has evolved markedly over the last century as the way dedifferentiation occurs and what manifests as a result of its occurrence has shifted into
two primary schools of thought: those, historically, who theorize that dedifferentiation either generates or is the resultant of psychotic or infantile processes and those, more recently, who postulate that dedifferentiation is a state of optimal being resulting in generative and healing processes. One reason proposed by Saketopolou (2014) for this relatively new conceptualization of dedifferentiation as a desirously generative state is that its destructive nature of runs counterintuitively to the long-standing psychological belief that ego integration, rather than ego destruction, is necessarily for psychic growth. However, descriptions of boundary dissolution in certain intersubjective encounters can be found in literature predating formal recognition of it as a developmental concept.

The existence of the process of dedifferentiation has been described in the literature dating back to early object relational and attachment theorists but was codified into its usage as this study conceptualizes it by Marion Milner (1958) where she challenged the notion that dedifferentiation existed solely as a regressive, infantile, or neurotic defensive function, and, instead, reframed it as a location where old ego structures are broken down, leaving room for new intrapsychic growth and possibility. Historically, dedifferentiation has been defined as a developmental process characterized by infantile, regressive, or psychotic processes. Noted child psychoanalyst Margaret Mahler (1968) exemplified this belief by referring to dedifferentiation as a manifestation of psychotic and neurotic differences or, what she relationally-termed “symbiotic confusion” (p.756). The ‘symbiotic confusion’ Mahler is referencing is that of an unindividuated relationship with the mother. Differentiation and individuation are seen as critical to the development of a complex and independent self. Yet, this must always be achieved in relationship with another, which creates an on-going tension one must navigate: how to develop individually through growth with others. This process of
symbiosis to differentiation to individuation is frequently depicted linerally; you progress from one stage to another until you have achieved psychic separateness. However, Georges Bataille (1986) saw development, and the constant negotiation of being with another on the path to separateness, as a space one vacillates in and around:

“On the most fundamental level there are transitions from continuous to discontinuous or from discontinuous to continuous. We are discontinuous beings, individuals who perish in isolation in the midst of an incomprehensible adventure, but we yearn for out lost continuity” (p. 15).

Dedifferentiation is the name given to that continuous space. After differentiation has been achieved, dedifferentiation, or a momentary merger and experience of oneness with another, can result. But, still not all theorists agree that differentiation must precede dedifferentiation; research is just beginning to emerge on the function of dedifferentiation and its separateness from symbiosis. What theorists have generally been able to agree upon is that dedifferentiation is a state of instability (Saketopoulou, 2014, 2015) and, as such, must be navigated with measured excitement.

The Relationship of Dedifferentiation to Flow

Based upon the most recent conceptualizations of dedifferentiation as a space of “the dismantling of difference and boundary between self and other...an experience of oneness and continuity” (Rundel, 2015, p. 615) and “a particular variant of destructiveness that undoes difference and softens separateness” (Saketopoulou, 2015, p. 631), its resemblance to the process described during (and after) an experience of flow is uncanny. Both experiences of flow and dedifferentiation are said to involve a loss of self-consciousness, a dissolution of the sensory experience of physical and psychic boundaries, a state of total absorption, and to result in a more
differentiated, integrated, and resilient individual (Csikszentmihalyi, 1990; Rundel, 2015). It is my belief that what is occurring during a flow state experience is dedifferentiation where the flow state serves as a transcendent function allowing the occurrence of dedifferentiation; entering into a flow state appears to be theoretically analogous for entering a state of dedifferentiation.

As much overlap as there appears to be, there is one striking difference between the way dedifferentiation and flow are conceptualized. While a flow state experience is described as one in which there is optimal enjoyment, the movement toward dedifferentiation is characterized by feelings of anxiety, alternately explained as fear of discontinuity or death (Baitalle, 1986), phantasies of oneself destructing into particulate forms of matter (Rundel, 2015; Saketopolou, 2015), and, most bluntly, dread (Rundel, 2015). This anxiety of non-being is replaced by the less anathema experience of bliss once the dedifferentiated state is entered (Rundel, 2015). The implications of the “ego shattering” associated with transformational psychic growth following dedifferentiation are the most likely source of the experienced anxiety; and, in fact, the anticipated anxiety often comingles with feelings of excitement, enjoyment, or ecstasy.

If it is true, then, that dedifferentiation is what is occurring during a flow state experience, then a flow state experience would also be “ego shattering”. This runs in direct opposition to Csikszentmihalyi’s (1990) assertion that flow “helps to integrate the self because in that state of deep concentration consciousness is unusually well ordered” (p. 41) and, that following a flow state, one feels more “together than before, not only internally but also with respect to other people and to the world in general” (Csikszentmihalyi, 1990, p.41). In dedifferentiated states, it is the energetic destruction of old, broken, or malignant ego structures- not the orderliness- that makes way for transformative psychic growth (Vaughan, 2015). This destructiveness, Saketoupoulou (2015) writes “may be furnished with extraordinarily productive potential, but it
is also perched on the turbulent edge of chaos. It congregates on the line that separates growth and collapse and can catalyze a wide range of different emergent reorganizations” (p. 636).

Interestingly, although the mechanics of growth described by Csikzentmihalyi during a flow state experience contrast with those described by those theorists writing about dedifferentiation, both Csikzentmihalyi and research on dedifferentiation proffer an eerily similar theoretical basis for what, exactly, facilitates flow or dedifferentiation experiences, respectively. In writing about the flow experience and its benefit as a coping skill, Csikzentmihalyi (1990) describes stressful and traumatic events as “chaos” comprised of “waste energy” which require tools (namely, flow and its associated conditions) to create “dissipative structures…without [which] we would be constantly suffering through the random bombardment of stray psychological meteorites” (p. 202). Similarly, Rundel (2015) writes about dedifferentiation’s role in the discharge and release of excessive energies but, rather than naming increased concentration as the remedy for these excesses, she describes orgasm as “an essential way to do this, by gathering excesses to a peak of excitement then dissolving them in quitetude” (p. 623). Both Csikszentmihalyi and Rundel describe the self as more differentiated and fundamentally complex following the gathering and dispensing of excess psychic material

**Transgressive Eroticism and Optimal Experience in Live Music Performance**

**Transgressive Eroticism as a Facilitator of Dedifferentiated States**

Freud located sexuality as an intersection of pleasure, power, and fear where female sexuality was about jealousy, possession, and a narcissistic attempt to reclaim power (Mitchell & Black, 1995). Although Freud located sexuality as an instinctual drive, thereby relegating it to a singular and isolated expression of the self’s needs, sexuality is rarely viewed in modernity without a conceptualization of the other, as the functionality and occurrence of sex is most often
manifested in relation to another. Carl Jung (1961) was the first to breakaway from Freud’s interpretation of the sexualized body and sexualized behavior; Jung believed the sexual body was both symbolic (to the self) and sexualized (by the other). Currently, sexuality and the sexual body continue to be viewed largely in both metaphorical and symbolic terms as well as how the body and person are sexualized by a multiplicity of others (Colman, 2005). In this way, sexual behavior and fantasy are both now located as “expressions of meaning as well as expression of the instinctual drive” (Colman, 2005, p. 642) incorporating some of the narcissistic libidinal yearnings of the Freudian lens as well as the object relational departures which comprise much of our current discourse on sexuality.

Klein, continuing to incorporate object relatedness into the definition of sexuality, is concerned with the balance between self and other’s ability to love and hate which situates sexuality in a position of love, rupture, and repair (Mitchell & Black, 1995). This constantly negotiated tension between self and other is the benchmark for viewing sexuality- and its more mystical and sensate compatriot, eroticism- in terms of object relations. Further specifying the aforementioned tension, Benjamin (1990) has written about the pleasure experienced through sexual unions as the fulfillment gained from achieving the desire to be recognized. The duality of wishing to be both known by another as well as to know another was previously conceptualized by Georges Bataille (1986) as what constituted the space he called ‘the erotic’, “the inner life of man…[who] is everlastingly in search of an object outside [sic] himself but this object answers the innerness [sic] of the desire” (p.29). For Bataille (1986), we are all “discontinuous beings, individuals who perish in isolation in the midst of an incomprehensible adventure, but we yearn for out lost continuity” (p. 15); it is this dualistic and contradictory wish which facilitates the experience of dedifferentiation, a movement toward discontinuity through
erotic activity as a means of “dissolving the separate beings that participate in it [revealing] their fundamental continuity” (p.22). Bataille’s (1986) focus on eroticism, which he found to be operationalized by individuals more expansively than simply in its relationship to sexual activity, was integral to transformation and growth:

“The whole business of eroticism is to strike to the inmost core of the living being, so that the heart stands still. The transition from the normal state to that erotic desire presupposes a partial dissolution of the person as he exists in the realm of discontinuity…the whole business of eroticism is to destroy the self-contained character of the participators as they are in their normal lives” (p.17).

Eroticism is, in this way, differentiated from either sexuality or sexual activity by the experience of it as transcendent destruction.

Dedifferentiation, also an experience of transcendent destruction, has almost exclusively referenced in the literature in regards to either its occurrence in extreme, infantile, or regressed psychological states or in relation to the erotic. Both erotic dedifferentiation and the embodied erotic move toward union occurring during transcendent orgasm have been posited as transcendent functions which facilitate the growth of new ego structures and the emergence of creativity, spontaneity, and structural integrity. However, not all sexual activity nor all orgasms produce dedifferentiated states. Bataille (1986) and Saketopoulou (2015) writing philosophically and psychoanalytically, respectively, both maintain that it is the nature of transgression (and specifically sexually transgressive behavior), which denotes the erotic and facilitates the move toward dedifferentiation.

Transgression (and especially sexual transgression), Saketopoulou (2014, 2015) believes is necessary to facilitate a move toward merger. Saketopoulou (2015) defines transgression as
that which “is subjectively experienced as pushing the (idiosyncratically defined) line” (p.635).

It is this juxtaposition between what is normalized as acceptable and what may be desired which can give way to the pursuance of a transgressive erotic act. The transgression, then, “opens the door into what lies beyond the limits usually observed, but it maintains these limits just the same” (Bataille, 1986, p. 67).

Transgressive pleasure and the resultant experience of dedifferentiation, Saketopolou (2015) warns, should be approached with caution, as it remains a site of instability. The transgressive nature of the sexual act, for example, is not simply to provide tension reduction (Freud, 1953) but to saturate the self with pleasure, even when that saturation tips into exhaustion (Laplanche, 2004). It is at this point that transgressive eroticism “can push us into dysregulation, into the too-muchness of experience” (Saketopolou, 2015, p. 635). Because it is the nature of transgression to pursue the ‘too-muchness of experience’ to the point of oversaturation, transgressive eroticism is uniquely positioned to disrupt and shatter the ego’s integrity, facilitating a dedifferentiated state culminating in generative and restorative psychic growth.

**Transgressive Eroticism in Live Music Performance**

While erotic transgression as it relates to dedifferentiation is described only in terms of sexual acts or activity, transgressive eroticism is not wholly limited to distinctly corporally sexualized spaces. What, psychodynamically, defines the transgression in the transgressive act necessary for dedifferentiation to occur is an experience of anxiety and the feeling of moving toward death (Saketopolou, 2015). And, because eroticism is defined as a transgressive intertwining of subject and object, eroticism need not stagnate solely as a correlate of sexual activity, but can be found in nearly any space where and an individual is engaged in
transgressive acts in conjunction with another. And, while some limited research has been conducted on the experience of transgressive erotic acts facilitating personal growth in areas other than sexuality, almost no research has been undertaken on the nature of the relationship between transgressive eroticism and musical performance.

Indeed, participating in musical performance, which has previously been identified as one of the areas most easily inducing states of flow, is also a uniquely erotically transgressive act. Rebelo (2006) writes about this as emerging for the musician from the intersubjective third space created by performer and instrument where they share an inhabited space in which instrument transcends object status and becomes an entity unto itself. It is then, Rebelo (2006) asserts that there seems to be “a particular performative state that has the intangibility commonly associated with an erotic object of desire. The intangibility of this state only contributes to its status as object of desire. It is a state that manifests engagement, participation, and above all enunciates the instrument as entity” (p. 31). Rebelo (2006) further elucidates the connection between eroticism, transgression, and performance with the following:

“The object of desire is then the performative act; a desired state that enunciates and culminates in the erotic event…the performance situation evokes complex juxtapositions of desires and expectations…. The notion of prescribed transgression is useful when thinking about music performance; perhaps the performer enacts it. The public display of the erotica between the performer and the desired object or state constitutes a kind of depravation that is not only accepted, but expected by the spectator; only during the performance, though. The performative state implies a change in social roles that is inherently transient. The shift of rules that allow for this transgression is only validated through this transient element of performance” (p. 32-33).
Rebelo (2006) finally invokes the concept of discontinuity central to Bataille’s definition of eroticism; however, Rebelo reinterprets it, locating the inherent anxiety found as one approaches dedifferentiation not as a discontinuity anxiety when approaching union or merger with an other but as discontinuity anxiety upon dramatic realization of how great a chasm of difference lies between ourselves and an other.

Performing live music, then, can be classified as an act of transgressive eroticism undertaken by performer and instrument as entity and done in volitional view of spectators in an act of sensate symbiosis. As such, live music performance should, theoretically, be spaces where dedifferentiation can occur for the performers. If this is true, then studying flow state experiences, already proven to happen with relative frequency in conjunction with music, should illuminate the presence of dedifferentiation occurring. Because it is theoretically postulated here that dedifferentiation is occurring during flow states, dedifferentiation will be measured by proxy via flow as well as narratively by performer descriptions of their flow state experiences and any observed changes or outcomes following flow.

This study examines the experience of a flow state during live music performance as a proxy for dedifferentiation as well as its concurrent effect on the subjective well-being (SWB) in emerging and young adults. Live music performance serves as the transcendent function through which the transgressive eroticism needed to facilitate a state of dedifferentiation should occur.
CHAPTER III

Methodology

To understand the impact of achieving a flow state in musical performance on the personal and relational well-being of emerging and young adults, a mixed methods research design was used. Mixed method designs are “combine or mix qualitative and quantitative research techniques” (Onwuegbuzie & Collins, 2007, p. 281). Using a combination of quantitative and qualitative methods allows for “the best design to address complex social problems” (Bronstein & Kovacs, 2013, p. 354). Mixed methods research designs continue to increase in popularity with social work researchers due to the customizability of study design which offers a unique “synergy, breadth, and depth otherwise difficult to achieve with single methods” (Bronstein & Kovacs, 2013, p. 354). A mixed methods approach was integral to the design of this study as it allowed for both an examination of the study hypotheses through quantitative statistical analyses as well as a thematic, exploratory conceptualization of the theoretical basis of the results of the tested hypothesis.

Research

The design required the development of a cross sectional survey consisting of three standardized measures and six open-ended responses. The standardized measures were selected based on their fit as proxies for both independent (i.e. flow) and dependent variables (i.e. well-being). The survey included four quantitative scales and a set of demographic questions followed by a set of qualitative questions. The four standardized quantitative scales allowed for an examination of the extent to which key concepts of the study (i.e., flow, well-being, affect) were
statistically related. Six qualitative questions allowed respondents to provide descriptions of experiences of flow and their impact on emotional states.

A fixed, structured survey was developed and implemented online using the program Qualtrics. Participants followed a hyperlink to the survey where they were first greeted by a screen requesting they attest to meeting all five eligibility criterion. If they failed to meet all five pre-screening questions, participants were exited out of the survey and thanked for their participation. For participants who passed the initial pre-screening questions, the next screen of the survey was the informed consent document (Appendix A), which they were asked to review. At the end of the informed consent, participants were asked to answer “ACCEPT” or “DECLINE” as a means of anonymously and electronically capturing their consent for participation in the survey. Participants were informed within the informed consent document that participation on any question was optional but that once the survey was submitted, their participation could not be retracted.

Participants providing informed consent were asked for optional demographic information including what type of instruments or vocal styles they use, age range, gender identity, race and/or ethnicity, sexual orientation, socioeconomic class in their family-of-origin, educational background, and if they had ever received psychotherapy or counseling. These demographic questions were followed by a brief, one-paragraph introduction to the quantitative section, which consisted of four standardized measures, which are described in detail below. The rationale for the choice of each survey can be also be found below. The demographic questions and surveys were followed by six open-ended qualitative questions, which will also be elucidated below.
The survey could take anywhere between 3 and 15 minutes to complete. One of the qualitative questions was not optional and could take between 30 seconds and 10 minutes to answer. The other qualitative questions were optional and could take between 30 seconds and 30 minutes to respond to, collectively. Thus, this entire survey could take between 4 and 55 minutes to complete with an average anticipated completion time of approximately 15-20 minutes.

As a non-professional musician with over twenty years of experience playing several instruments both solo and as part of ensembles, my personal relationship to the broader community of musicians served as both an aide as well as a source of bias when constructing this survey instrument. While I could draw upon my own lived experiences to develop this survey instrument which may have heightened its relevance to young adult musicians, my own experience may not be generalizable nor reflective of those of other musicians. A limitation to this survey was my individual “not knowing” which was partially addressed through a small pilot test of the survey instrument.

**Demographic Questions**

Optional demographic questions were introduced immediately after the informed consent document as a means of gathering participant information prior to the beginning of the formal research questions, so as not to interrupt any flow occurring during the completion of the survey. For these demographic questions, participants were asked to provide the following information and were given the following choices; participants could also always elect to skip a question, select “other” and provide their own response, or select “prefer not to answer”. Demographic information was requested about age, gender identity, sexual orientation, race/ethnicity, socioeconomic class of family-of-origin, education, type of musical instrument or vocal style in
which the respondent had trained, and whether or not the respondent had previously or was currently participating in counseling or psychotherapy.

**Standardized Instruments, Tests, and Measures**

Because this survey was conducted anonymously via the internet, participants were given the option of answering any and/or all of the survey instruments and questions.

**Quantitative, Standardized Scales**

The four quantitative scales selected for this study were selected due to their fit to the study hypotheses, ease of use, availability, and non-rigid score outcomes. Information about the development and psychometric properties of each scale can be found below.

1. The Flow State Scale: Created by Jackson and Marsh (1996), this 36-item scale is really a compilation of nine subscales, each measuring the intensity with which a participant experiences that construct of flow during a flow state experience.

2. The Flourishing Scale: Created by Diener and Biswas-Diener, this brief eight-item scale asks participants to rate their perceived level of success and satisfaction with the way they are engaging across multiple life domains.

3. The Scale of Positive and Negative Experience (SPANE): Also created by Diener and Biswas-Diener (2009), this twelve-item scale measures both positive emotional experiences (six items) and negative emotional experiences (six items) by asking participants to quantify how frequently they experience a variety of both specific and diffuse emotions.

All four scales were all available in the public domain for use freely (CUDOS) or available for use in research as long as the researchers were credited for scale creation (Flow State Scale, SPANE, Flourishing Scale). Scales were additionally selected for their relevance to the study question and hypotheses as well as to provide reliability and validity in the subjective rating of emotional experience.

*The Flow State Scale (Jackson and Marsh, 1996)*

Jackson and Marsh (1996) identified that research of the flow state experience (as assessed in athletes) was entirely interview-based; and, while the research was promising, because “flow is a hypothetical construct…its usefulness must be established by investigations of construct validity” (p. 20). To do this, they postulated that a mix of methods including empirical assessments would add to a greater understanding of flow and potentially allow for exploration of its convergence with other psychological constructs (Jackson and Marsh, 1996, p. 20). While they identified a flow state experience as one which is hypothetical, experiential, and phenomenological- and, therefore, containing depth and complexity best captured via qualitative methods- they also indicated the need for an empirical measure of flow which could be more easily collected, less time consuming for both researchers and participants, and simultaneously provide a more complete and generalizable picture of the experience of flow (Jackson and Marsh, 1996, p. 31).

They designed an initial fifty-four item version of the Flow State Scale which was developed from aggregates of earlier attempts at quantifying flow states. This initial scale was comprised of nine subscales (six items per subscale), each measuring a different dimension of a flow state experience; this prototype was then pilot-tested and evaluated independently by seven other researchers who were both familiar with the concept of flow and had also studied flow in
the athletic experience (Jackson and Marsh, 1996). Reviewers were asked to provide feedback around relevancy of a proposed question to the flow dimension it correlated with as well as clarifications and suggestions for item wording for respondent accessibility and ease of use. The pilot-study evaluation resulted in changes to this initial fifty-four question version, which was then tested with a sample of 252 respondents, all of whom were active athletes or actively participated in sports. The current thirty-six item scale used in this study survey is the result of changes made through the pilot evaluation and testing process; changes were made to strengthen weak, ambiguous, or poorly-worded questions with ones which were more streamlined, clear, and distinct (Jackson and Marsh, 1996).

The Flow State Scale, while administered as one single scale where participants are asked to apply a five-point Likert scale assessing how strongly they agree to how strongly they disagree with thirty-six statements (determined through extensive research (see: CHAPTER II) correlated with a flow state experience. And, while the scale is administered as one instrument, there is no overarching Flow State Scale score; the nine subscales measuring various dimensions of flow- challenge-skill balance, action-awareness merging, clear goals, unambiguous feedback, concentration on task at hand, sense of control, loss of self-consciousness, transformation of time, and autotelic (“enjoyable”) experience- are each scored separately. Jackson and Marsh (1996) based their decision for the multiplicity of measurements on research supporting a flow state as compromised as an experience of this group of distinct concepts experienced simultaneously in an enjoyable way; despite their decision to keep the Flow State Scale scored dimensionally, they acknowledged that “the relative usefulness of a single global FSS [sic] score compared to the set of nine FFS scale scores is a question open to further consideration” (p. 30).
394 athletes participated anonymously in the initial testing of the thirty-six item Flow State Scale. Prior to being administered the Flow State Scale, respondents were asked if they had experienced an optimal experience over the past year and, if so, to identify it. Respondents who were unable to do either were excluded from participation. Results from this initial test show that both the overall thirty-six item Flow State Scale as well as the nine subscales tested as reliable (coefficient alpha estimates of reliability between of .83 for the aggregated scale and subscales scores ranging from .80 to .86) and valid. While the thirty-six item scale demonstrated a higher reasonable fit of responses (RNIs > 9 when tested for nine first–order factors and one higher-order factor) than the initial fifty-four item pilot scale (Jackson and Marsh, 1996). Additionally, they reported that “although all 36 correlations among the nine a priori factors are all positive…the size of the correlations…provides good support for the separation of the FSS factors” (Jackson and Marsh, 1996, p. 26).

Scale of Positive and Negative Experiences (SPANE) and The Flourishing Scale (Diener et al., 2010)

Both the Scale of Positive and Negative Experiences (SPANE) and the Flourishing Scale were developed by in 2009 by Diener and Biswas-Diener to capture more holistic and interpersonal aspects of happiness and well-being which research was starting to identify including evaluating well-being based on social relationships, sense of purpose in life, social capital, self-acceptance, competence, and other “universal human psychological needs” (Diener et al., 2010, p. 144). Because both scales were created to address limitations with other measures of well-being, both scales sought to readily assess a wider range of affective states and experiences, including ones which were previously omitted by other measures of mood or well-being as well as universalizing measures of well-being by deemphasizing or ameliorating a
specific cultural emphasis on certain affective states or experiences over others (Diener et al., 2010).

The SPANE is a twelve-item questionnaire asking respondents to self-report about positive and negative feelings they have experienced over the past four weeks. Six of the scale items assess positive emotional experiences while the other six assess negative emotional experiences; of the six items associated with each emotional experience (positive or negative), three are more general measures (e.g. good, bad) and three are more specific (e.g. contented, afraid).

According to the developers Diener et al. (2010), the SPANE was “created…to improve on existing measures of feelings” (Diener et al., 2010). One way it does this is to assess experienced feelings and emotional states over a broader period of time than many scales and assessments of mood. Typically, when a scale asks a respondent to self-report about mood over a brief period of time (e.g. past 72 hours, over the last week), the scale may be assessing a specific, transient mood state rather than measuring emotional experience over time. The SPANE measures emotional experiences over the preceding four weeks, which is “short enough to allow the respondent to recall actual experiences rather than rely on general self-concept, yet is based on an adequate time period to avoid tapping only a short-term mood” (Diener et al., 2010, pgs. 145-146). One way the SPANE differs from other scales of mood is by asking respondents to reflect upon various intensities of experienced emotions and not simply high arousal mood states.

Each item assessed by the SPANE is scored on a Likert Scale ranging in intensity from a low of 1 (“very rarely or never”) to a high of 5 (“very often or always”). Positive and negative feelings are scored separately due to “the partial independence or separability of the two types of
feelings” (Diener et al., 2010, pg. 146) creating two subscales where both subscale scores can range from 6 to 30. The sum of positive scores forms the subscale SPANE-P while the sum of negative scores forms the SPANE-N. An overall score reflecting affect balance (SPANE-B) can be calculated by subtracting the subscale score of SPANE-N from the subscale score of SPANE-P; the resulting SPANE-B score can range from -24 to 24.

The Flourishing Scale is similarly brief. It is comprised of eight short statements aimed at assessing how successful a participant feels in several life domains, referred to as "social-psychological prosperity" (p. 144), specifically the universal psychological needs for competence, relatedness, and self-acceptance. The Flourishing Scale is innovative in that it assesses the quality of interpersonal relationships both in how they impact the respondent but in how the respondent engages and contributes to them. This, combined with a focus on the definition of flourishing as "having a purposeful and meaningful life" provides a different metric for assessing well-being in something less transient than a respondent's affective state. The Flourishing Scale uses a seven point Likert scale to assess agreement or disagreement with a particular phrase. The numbers for all eight statements are then added together to produce one score. Scores range from 8 (lowest possible) to 56 (highest possible) where increasingly higher scores represent a person with many psychological resources and strengths.

Both scales performed well in tests of validity and reliability and both scales “show strong psychometric characteristics” (Diener et al., 2010, p. 144). Both the SPANE and Flourishing Scale were tested alongside a variety of other existing measures of well-being to determine the convergent validity of these newly developed scales with already existing measures. The SPANE was found to demonstrate a high level of external reliability and convergent validity with the other tested existing measures of well-being. In addition, tests for
internal validity and reliability were also moderately strong and consistent with the Cronbach’s alpha score of each subscale ranging from $\alpha = .81$ (SPANE-N) to $\alpha = .89$ (SPANE-B) and the temporal stability ranging from .62 (SPANE-P) to .68 (SPANE-B). While the Cronbach’s alphas of the SPANE subscales and Flourishing Scale were similarly strong, the temporal stability of the Flourishing Scale was slightly higher ($\alpha = .71$). Diener et al. (2010) attributed this to the concept of ‘flourishing’ being “somewhat more stable over time than were feelings” (p. 147).

**Clinically Useful Depression Outcome Scale (CUDOS) (Zimmerman et al., 2008)**

The Clinically Useful Depression Outcome Scale (CUDOS), developed by Zimmerman et al. (2008) as a “brief (completed in less than 3 minutes), quickly scored (in less than 15 seconds), clinically useful…reliable, valid, and sensitive to change” (p. 132) self-reporting depression scale, was designed to improve the efficiency of clinician-based depression assessments without compromising quality while additionally making it respondent-accessible as an increasingly cost-effective option (Zimmerman et al., 2008).

The CUDOS consists of eighteen items asking respondents to rate their experience of various depression symptomatology during the past week (as extrapolated from the Diagnostic and Statistical Manual- Fourth Edition (DSM-IV) criteria for both Major Depressive Disorder (MDD) and Dysthymic Disorder) as well as “psychosocial impairment and quality of life” (Zimmerman et al., 2008, p. 133) on a five-point Likert scale with scores ranging from “Not At All True (0 days)” to “Almost Always True (every day)”. A total score of symptom severity is derived from responses to the first sixteen questions (the responses to questions seventeen and eighteen are more to aid clinicians with weekly symptom tracking) and scores can range from 0 to 64.
When tested, the CUDOS was found to be both a valid and reliable measure of depression with very high internal consistency, high test-retest reliability, and high correlations to other depression symptomatology rating tools. 1,475 psychiatric outpatients of the Rhode Island Hospital Department of Psychiatry were given the CUDOS as part of their initial intake paperwork. Of the initial 1,475 respondents, 100 patients diagnosed with depression were given the CUDOS in a follow-up session to test for retest reliability. Testing examined two types of reliability; it was acknowledged by Zimmerman et al. (2008) that because patients can be distressed, highly symptomatic, or more emotionally labile at treatment intake, the test-retest reliability of the CUDOS may vary as continued data is collected over the treatment duration (p. 134). Additionally, the scale was written to assess the subjective experience of respondents over a one-week period which was one-week shy of what the DSM-IV listed as criteria for diagnosing MDD; researchers indicated that while this may lead to “a potential increase in false positives…[it] should be counterbalanced by a decrease in false negatives” (Zimmerman et al., 2008, p. 133).

Upon analysis, internal consistency coefficients (Chronbach’s alpha scores) were very high for both the initial intake samples (α = .90) as well as the follow-up reassessment samples (α = .90) (Zimmerman et al., 2008). For both samples, the test-retest reliability as measured by the total scale score was high (at intake, \( r = .92 \) and at follow-up, \( r = .95 \)); the test-retest reliability of individual scale items was also high (Zimmerman et al., 2008). Researchers also assessed how highly the CUDOS correlated to other clinician-administered and self-reported scales of depression (as well as other Axis I disorders which frequently presented as co-morbid with MDD) and found that the CUDOS high correlated with other measures of depression, patient self-reports, and clinician ratings.
Qualitative, Open-Ended Questions

Six open-ended questions were developed specifically for this survey and were designed to expound conceptually and, potentially, causally on the data gathered from the initial four quantitative scales; they were developed and implemented with the understanding that assumption that participants both quantitatively experienced a flow state during live musical performance and that they could recall a clear and resonating impact from these experiences. Specifically, the qualitative questions were seeking to explore a potential theory of causation for the what, theoretically and psychodynamically, was occurring during an experienced flow state which contributed to an increase in feelings of personal well-being following the experience of a flow state during live musical performance.

These six qualitative questions included the following: (1) “What appears most to you about performing live music?”, (2) “Do you prefer to perform solo or with others” and “What do you prefer about performing solo or with others?”, 3) “What about performing solo or with others impacts you emotionally?”, (4) “Describe a time when you positively “lost yourself” in the music and the feeling of losing yourself in the performance.”, (5) “In what ways does the feeling of being positively lost in the music or performance impact your relationship with others or yourself? Please describe”, and, finally, (6) “Please use this space if there is anything else related to instrumental or vocal performance and personal well-being that you wish to share”: a catch-all question to capture any insights not previously asked about but which participants might wish to add about their subjective experiences.

Pilot Testing of Survey

Prior to the start of data collection, the survey instrument was pilot tested with three people. Because the quantitative scales were previously tested, validated, peer-reviewed, and are
actively utilized in current research and clinical setting, they were not tested for viability, although they were tested for internal reliability using Cronbach’s alpha and all were found to have moderate-to-strong correlations. Similarly, because the demographic questions were intended for optional participation, they were also not pilot tested.

The qualitative questions were pilot-tested in two phases: the first phased tested for general answerability of the questions. Two different testers were asked to consider the questions and to respond with feedback on how they interpreted what each question was asking and what kind of response they felt inclined to provide based upon what was being asked. While most feedback was positive, two of the questions required minor adjustments— one for clarification of what the participants were being asked to respond to and one for redundancy. This feedback was incorporated into question edits and a second round of questions was pilot tested with three people to ascertain general understanding, answerability, and cohesive fit with the overarching theme of the survey instrument.

The aim of the open-ended questions was to inspire narrative responses encapsulating literal, metaphorical, and symbolic experiences. For all three pilot testers, all questions were found to generate some narrative response and several of the questions were reported by pilot testers to trigger thoughtful and descriptive responses which fit with the quality of responses I hoped for the survey to generate.

Recruitment

Inclusion Criteria

Participants in this study self-identified as belonging to the category of emerging or young adults ages 18 through 35 years of age. Participants were required to be between the ages of 18 and 35 years, inclusive of these ages, as these ages standardly fit the definition of either
emerging or young adults. Participants were also required to identify as either musicians or those who performed music.

**Exclusion Criteria**

Because experiences of a flow state have been empirically-demonstrated to emerge when the level of skill meets the required challenge of a task (Csikszentmihalyi, 1990) and because this study assumes experiences of flow are occurring, especially in relationship to others, casual or spontaneous musical or vocal performances such as singing in the car or making and posting videos of individually-made covers to social media sites was used as an exclusion criteria for “performance”.

**Sampling Methods**

Recruitment was done using a convenience sample. Because there was no way to identify the entire population relevant to this study who performs instrumentally or vocally, a non-probability, non-random sample was used for recruitment such that any adult who fit the inclusion criteria, could elect to complete the survey instrument.

Participants were obtained through three primary methods: solicitation emails to the directors of musical programs, postings on social media, and word-of-mouth. Solicitation emails were generated which included a description of the type of participation the study was requesting and a link to the survey. These emails were sent to the directors of two music programs, one for an elite, private, liberal arts college, and one for the director of both a local ecclesiastical music program as well as a local civic symphony were many members were affiliated with educational programming and music. Correspondences with both musical directors asked for their consent and assistance with disseminating the study information and survey link to the musical participants they interacted with as well as to share the survey with others as they wished (one of
these solicitations for assistance with generating a sampling frame and their affirmative responses comprise Appendix B).

Similarly, when the survey was advertised by word-of-mouth either by myself or via others, those talking about the survey were asked to either pass along the same information and survey link. A former classmate of this researcher who works in the graphic design field volunteered to make a recruitment picture out of colors, various text sizes, and some of the recruitment information which could be shared more easily, especially online (Appendix C). Online recruitment happened over a variety of forums. A single-use handle was created to post on the forum website Reddit.com, and, specifically, in two of the music and/or research participant based subReddit communities (e.g. r/WeAreTheMusicMakers, r/socialwork). The subReddit community We Are The Music Makers accepted the survey post while the subReddit community of Social Work rejected the post and sent, in part, the following message: “We allow surveys to be posted here when the sample pool calls for social workers specifically, to be sampled. I have reviewed your survey and it is not restricted to social workers so I have removed it” (Personal Correspondence, 2016).

Some members of and visitors to We Are The Music Makers contacted me via the email provided in the informed consent of the survey to inquire whether they could share the survey with their local music communities, and so the sample population potentially benefitted from snowball sampling in that manner as well. One individual who saw the survey on Reddit, suggested the survey be shared on band or musician forums online. A survey recruitment post was also made to the forum site BandMix.com. Additionally, the online recruitment flyer was shared in Facebook groups associated with musicians and/or musical programs I have been
involved with at various points in my lifetime as well as with my Facebook community of friends and colleagues.

The methods and means of recruitment present some limitations and openings for bias which are inherent when non-randomly sampling a population. Word-of-mouth advertising can often generate a sample more closely matching the demographic characteristics of the researcher. Some of this was ameliorated through the posting in popular, globally-recognized, and anonymous online forums and music communities of which I have never frequented nor participated in.

The survey was active online for a total of four weeks, during which time 69 participants completed the quantitative portion of the survey and 62 participants engaged with the qualitative questions.

**Ethics and Safeguards**

Prior to any recruitment or data collection for this research, the Smith College School for Social Work Human Subjects Review (HSR) Committee approved the methodology of this study as well as ensuring all ethical standards were maintained in the course of this research (Appendix D). Anonymity was assured through the anonymously and randomly aggregated online survey results; additionally, all demographic questions were optional and participants were never asked to reveal any identifying information. Participants could choose to use the open-ended text boxes to identify themselves, but this was never requested.

There were no identified participant risks (e.g. financial, social, legal, etc.) associated with participation in this survey. Participants were not offered nor received no financial compensation, remuneration, incentives, or “gifts” for participation in the survey. Participants
were identified as potentially benefitting from reflecting upon positive experiences of past musical performances.

**Data analysis**

This study explored the experience of flow as a proxy for dedifferentiation and examined three hypotheses regarding the factors that associate the experience of flow (as occurring during participation in live music performance) with personal well-being. These three hypothesis are as follows:

Hypothesis I: Performers who report higher level of dedifferentiation (as measured by flow) will report greater sense of personal well-being (as measured by SPANE-P and Flourishing Scale)

Hypothesis II: Performers who report more frequent or intense negative feelings and/or overall more negative sense of personal well-being will report fewer or lower rated experiences of flow states (as measured by the SPANE-N and CUDOS)

Hypothesis III: There will be no difference in experience of a flow state based upon gender.

This study additionally sought to thematically explore what, theoretically, may be occurring intrapsychically during a flow state experience by theoretically postulating that a state of optimal experience (flow state) is analogous for a dedifferentiated state, where participants are experiencing a metacognitive sense of merger or union and where there is new or reparative intrapsychic growth.

Data was collected and aggregated anonymously by the online survey software Qualtrics; analysis of that data began immediately following the closing of the active survey. Analysis of the quantitative and qualitative data was initially conducted separately but will be discussed
together to provide a more complete picture. A statistical consult provided by the Smith College School for Social Work was utilized for aid in analyzing the quantitative data through SPSS.

**Quantitative Data**

The raw empirical data was collected from Qualtrics and analyzed using various statistical methods with the help of the Smith College School for Social Work statistical consultant, Marjorie Postal. Before the data could be analyzed, all scales needed to be scored. Qualtrics is able to capture the responses to the scales and generate a mean and median score for each answered item on a particular scale, which facilitated the statistical analysis of the collected data. Scoring instructions for each scale accompanied the published research data for each scale and were provided to Marjorie Postal as part of the coding and analysis process. Each hypothesis was then tested through the statistical inquiry necessary for examining the relationship of the needed variables.

Hypothesis I and II (rates of flow will linearly correlate to measures of positive well-being and inversely correlate to measures of negative well-being) were tested through an examination of Pearson Product Coefficient Correlations ($r$) and their level of statistical significance. The Pearson Product Coefficient Correlation- or Pearson’s $r$- tests for statistically significant associations between level of measure values (in this case, the scores for the respective scales or subscales) by evaluating two unlike measures using a common denominator. This analysis produces a $r$ value, which is also referred to as a correlation coefficient. Correlation coefficient scores depict the strength and directionality of any association between the two variables; scores range from 0 (no statistically significant association) to 1 (total linear correlation) and may be either positive (one variable predicts the other) or negative (one variable predicts the other will do the opposite). Scores ranging from 0.7 to 1.0 (or -0.7 to -1.0) are
frequently considered very highly statistically significant (correlated), scores ranging from 0.5 to 0.7 (or -0.5 to -0.7) are highly correlated, scores ranging from 0.3 to 0.5 (or -0.3 to -0.5) are moderately correlated, and scores ranging from 0.1 to 0.3 (or -0.1 to -0.3) are weakly statistically significant. For the purposes of this study, correlations ranging from 0.1 (or -0.1) to 0 were considered null or of no statistical significance. A two-tailed test of significance will be applied to the range of scores to look for any association, regardless of directionality (Steinberg, 2004).

Hypothesis III (experiences of flow are not gender dependent) was examined through use of a \( t \)-test. To perform this test, responses to the demographic question regarding self-reported gender identity were first recoded and grouped according to chosen and participant-submitted gender classifications. An ANOVA (or analysis of variance) was performed between the various gender groupings (independent variables) to assess for any correlation to the mean flow scale subscores (dependent variable). This test was also performed using SPSS software. These statistical tests along with the raw data output by Qualtrics and a report of frequencies from Marjorie Postal comprised the quantitative statistical analysis of this research.

**Qualitative Data**

Qualitative research is summarized by Ritchie and Lewis (2003) as placing an “emphasis and value on the human, interpretative aspects of knowing about the social world and the significance of the investigator's own interpretations and understanding of the phenomenon being studied” (p.7). In order to best allow for my interpretation of the data, the qualitative responses were analyzed using a general inductive approach to qualitative data analysis, as described by David Thomas (2006) as allowing the most prominent or common themes in the raw data to emerge as themes during analysis. Because the qualitative portion of this study was created in hopes of examining what, psychodynamically, may be occurring during an experience of a flow
state, the emerging themes and categories were checked against the postulated hypothesis that dedifferentiation is occurring during a flow state; if it is, then the thematic categories generated from the qualitative data analysis should demonstrate a strong correlation to the criteria identified for those experiencing a state of dedifferentiation.

The primary method of analyzing this data was to create thematic categories from the raw data responses. Each category was given a label, a brief description (which will include what is both included and excluded from the category), exemplar drawn from the raw data which will best illustrate the category, clarification of connections or relationships to other categories, and a description of how to best understand the relationship the categories have to one another (e.g. if they demonstrate a linear relationship or if they build upon each other) (Thomas, 2006).

Thematic categories were developed starting with a read-through of all raw data responses. These were then grouped into categories two ways: responses which, on a cursory read appear to fit the overarching theoretical aim of this study were grouped together while, simultaneously, the text was simultaneously read closely and coded in vivo, where categories were generated from the raw data responses to ascertain which other themes may have emerged. Once the entirety of the text was read and bucketed into categories this way, each grouping was given a label and categories were finally grouped together or data redistributed to “avoid overlap or redundancy” (Thomas, 2006, p.242). This process of any qualitative inductive analysis should ideally leave the qualitative raw data grouped into ten to twenty categories by theme; the end result of inductive data analysis is to present between three and eight of the categories which are most prominent and/or best exemplify the goals of the study (Thomas, 2006).

The categories which resulted from this inductive analysis will be presented in Chapter IV of this thesis along with their descriptions and exemplar quotes from the raw data and further
discussed for their fit to the hypotheses of this study as well as for any significant themes generated from an *in vivo* coding of the raw data.
CHAPTER IV

Findings

The goals of this research study are two-fold: 1) to explore the impact experiencing a flow state during live music performance has on the personal well-being in emerging and young adults and 2) to postulate a theoretical basis for what is occurring during a flow state which may impact personal well-being. Three hypotheses were developed. Two are directed related to the expressed goals of the study. The third is not directly related but added to provide further understanding of the flow experience.

Hypothesis I:
Performers who report higher level of dedifferentiation (as measured by flow) will report a greater sense of personal well-being, if this hypothesis is supported, there will be:

A. A positive and statistically significant correlation between scores on the Flow State subscales and scores on the SPANE-P subscale.

B. A positive and statistically significant correlation between scores on the Flow State subscales and scores on the Flourishing Scale.

Hypothesis II:
Performers who report more frequent or intense negative feelings and/or overall more negative sense of personal well-being will report fewer or lower rated experiences of flow states. If this hypothesis is supported, there will be:

A. A negative and statistically significant correlation between scores on the CUDOS and the Flow State subscales.
B. A negative and statistically significant correlation between scores on the SPANE-N subscale and the Flow State subscales.

Hypothesis III:

There will be no difference in experience of a flow state based upon gender. If this hypothesis is supported, there will be no differences across genders on the Flow State subscale scores.

Results

This chapter contains a summary of both the major quantitative and qualitative findings from this mixed-methods study. This study was conducted entirely through an anonymous, online survey administered through Qualtrics (Appendix F). Survey participants were asked the following:

• Nine demographic questions

• Four standardized measures:
  o The Flow State Scale (Jackson and Marsh, 1996)
  o Survey of Positive and Negative Experiences (SPANE) (Diener and Biswas-Diener, 2009)
  o The Flourishing Scale (Diener and Biswas-Diener, 2009)
  o The Clinically Useful Depression Outcome Scale (CUDOS) (Zimmerman et al., 2008), and

• Six open-ended questions requesting narrative responses to both concrete and abstract aspects of a flow state which may be experienced while performing live music
  o What appeals most to you about performing live music?
  o Do you prefer to perform solo or with others?
  o What do you prefer about performing solo or with others?
o What about performing solo or with others impacts you emotionally?

o Describe a time when you positively “lost yourself” in the music and the feeling of losing yourself in the performance.

o In what ways does the feeling of being positively lost in the music or performance impact your relationship with others or yourself? Please describe.

• A final, optional wrap-up question asking for any additional information participants wished to provide.

This survey yielded 91 participants who both fit the initial survey criteria and provided informed consent to participate in the survey. Not all of these 91 initial participants, completed all questions or each section. The number of participants completing each question is listed in the table below.

Table 1: Number of Participants Completing Each Measure

<table>
<thead>
<tr>
<th>Question</th>
<th>Complete Responses</th>
<th>Question</th>
<th>Complete Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Questions</td>
<td>91</td>
<td>Qualitative Q1</td>
<td>62</td>
</tr>
<tr>
<td>Flow State Scale</td>
<td>69</td>
<td>Qualitative Q2</td>
<td>63</td>
</tr>
<tr>
<td>SPANE</td>
<td>67</td>
<td>Qualitative Q3</td>
<td>61</td>
</tr>
<tr>
<td>FLOURISHING SCALE</td>
<td>69</td>
<td>Qualitative Q4</td>
<td>60</td>
</tr>
<tr>
<td>CUDOS</td>
<td>65</td>
<td>Qualitative Q5</td>
<td>57</td>
</tr>
</tbody>
</table>

A final text box was provided which allowed participants to include any additional questions, comments, or information they wished to share. 31 participants engaged with that text box, most of them sharing thoughts unrelated to the survey questions (e.g. "Lincoln Park sucks!").
The demographic and quantitative findings will be presented first, followed by the qualitative findings.

**Descriptive Data: Demographics**

Participants were asked to respond to a range of self-identified demographic questions at the beginning of this survey; they were informed that all questions were optional and there were opportunities to both write-in an answer of their choosing (should one of the provided responses not fit their personal, ideological, or linguistic identifier) as well as the preference to opt-out of each question.

The following tables depict a breakdown of the main demographics of the survey participants including self-provided responses provided under the “Other” designation of each category. Because the survey was conducted anonymously via the internet, individual demographic responses could not be assigned to those participants completing the survey.

**Table 2: Demographics of Sample Population**

<table>
<thead>
<tr>
<th>Demographic Items</th>
<th>Frequency</th>
<th>Percentage of Sample Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musical Instrument*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Instrumental: Strings</td>
<td>66</td>
<td>72.5%</td>
</tr>
<tr>
<td>• Instrumental: Piano, organ, harpsichord</td>
<td>30</td>
<td>33.0%</td>
</tr>
<tr>
<td>• Instrumental: Percussion</td>
<td>19</td>
<td>20.9%</td>
</tr>
<tr>
<td>• Instrumental: Brass</td>
<td>13</td>
<td>14.3%</td>
</tr>
<tr>
<td>• Instrumental: Winds</td>
<td>15</td>
<td>16.5%</td>
</tr>
<tr>
<td>• Instrumental: Other (Please indicate type)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Chiptune- music made with a Nintendo Gameboy (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Conductor (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- DJ/Livemixing (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Melodica (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrument/Genre</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Saxophone (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthesizer(s) (3)</td>
<td>6</td>
<td>6.6%</td>
</tr>
<tr>
<td>Vocal: Opera, classical, large ensemble</td>
<td>4</td>
<td>4.4%</td>
</tr>
<tr>
<td>Vocal: Jazz</td>
<td>18</td>
<td>19.8%</td>
</tr>
<tr>
<td>Vocal: Pop, karaoke</td>
<td>10</td>
<td>11.0%</td>
</tr>
<tr>
<td>Vocal: Acapella</td>
<td>28</td>
<td>70.3%</td>
</tr>
<tr>
<td>Vocal: Band (please indicate genre)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>alternative, indie (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative/Rock (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Americana (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blues (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Folk (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indie (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indie / Orchestral rock (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indie, grunge (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punk (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punk Rock (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punk, Alt Rock, Noise (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;B, Hip-hop, Reggae (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock (10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock-ish, songwriter (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock, Reggae, Soul (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock/metal (1)</td>
<td>4</td>
<td>4.4%</td>
</tr>
<tr>
<td>Ska (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocal: Other (please indicate type)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blues, Jam (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Folk (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;B (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Age (in years):

- 18-20 | 10 | 11.0%
- 21-25 | 39 | 42.9%
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>26-30</td>
<td>22</td>
<td>24.2%</td>
</tr>
<tr>
<td>31-35</td>
<td>13</td>
<td>14.3%</td>
</tr>
<tr>
<td>Prefer Not to Answer</td>
<td>1</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

**Gender Identity:**

<table>
<thead>
<tr>
<th>Identity</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cis-female</td>
<td>14</td>
<td>15.4%</td>
</tr>
<tr>
<td>Trans woman</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Agender</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Gender fluid / gender queer</td>
<td>4</td>
<td>4.4%</td>
</tr>
<tr>
<td>Bigender</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Trans man</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Cis-male</td>
<td>47</td>
<td>51.6%</td>
</tr>
<tr>
<td>Omnipenender</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>12.1%</td>
</tr>
<tr>
<td>Cloudkin</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gender confused AFAB</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Male of trans experience</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Male? Which one is that?</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Malw [sic]</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Negative, I am a Meat Popsicle</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pineapple</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>What the fuck is all of this shit? I’m a dude.</td>
<td>5</td>
<td>5.5%</td>
</tr>
<tr>
<td>Prefer Not to Answer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Race/Ethnicity:**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person of Color</td>
<td>7</td>
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</tr>
<tr>
<td>White</td>
<td>75</td>
<td>82.4%</td>
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<tr>
<td>Other</td>
<td>7</td>
<td>7.7%</td>
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<tr>
<td>does this question or the answer options make sense to you?</td>
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<tr>
<td>Race/Identity</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
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<td>Hispanic (2)</td>
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<tr>
<td>Mixed (1)</td>
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<tr>
<td>Mixed race. White + Hispanic (1)</td>
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<tr>
<td>Trans racial black (1)</td>
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<tr>
<td>Prefer Not to Answer</td>
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<td>1.1%</td>
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Sexual Orientation*:

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<thead>
<tr>
<th>Preference</th>
<th>Count</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>I prefer people of the SAME gender</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>I prefer people of the OPPOSITE gender</td>
<td>53</td>
<td>58.2%</td>
</tr>
<tr>
<td>I prefer people of ANY gender</td>
<td>7</td>
<td>7.7%</td>
</tr>
<tr>
<td>I am on the asexual spectrum</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>I prefer FEMALE-PRESENTING people</td>
<td>10</td>
<td>11.0%</td>
</tr>
<tr>
<td>I prefer MALE-PRESENTING people</td>
<td>3</td>
<td>3.3%</td>
</tr>
<tr>
<td>I identify as “gay” or “homosexual”</td>
<td>3</td>
<td>3.3%</td>
</tr>
<tr>
<td>I identify as “straight” or “heterosexual”</td>
<td>32</td>
<td>35.2%</td>
</tr>
<tr>
<td>I identify as “bisexual”, “omnisexual”, or “pansexual”</td>
<td>9</td>
<td>9.9%</td>
</tr>
<tr>
<td>I identify as [write-in]</td>
<td>5</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

- A man that porks a woman’s vagina with his penis (1)
- Cis het (1)
- Heteroflexible (1)
- Negative I am a Meat Popsicle (1)
- Queer (1)

Socioeconomic Status of Family-of-Origin:

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
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<tr>
<td>Growing up, my family was WEALTHY or WELL-OFF or UPPER MIDDLE CLASS</td>
<td>15</td>
<td>16.5%</td>
</tr>
<tr>
<td>Growing up, my family was MIDDLE CLASS or WORKING Class</td>
<td>50</td>
<td>54.9%</td>
</tr>
<tr>
<td>Growing up, my family was POOR or LOWER MIDDLE CLASS or IN POVERTY</td>
<td>19</td>
<td>20.9%</td>
</tr>
<tr>
<td>My family’s socioeconomic status changed markedly while I was</td>
<td>5</td>
<td>5.5%</td>
</tr>
<tr>
<td>Prefer Not to Answer</td>
<td>1</td>
<td>1.1%</td>
</tr>
</tbody>
</table>
### Growing up

- **Other**
  - ?? (1)

### Education*

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<th>Count</th>
<th>Percentage</th>
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<td>Did not graduate high school or receive a GED</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Graduated high school or received GED</td>
<td>14</td>
<td>15.4%</td>
</tr>
<tr>
<td>Completed some college or received an Associate’s Degree</td>
<td>25</td>
<td>27.5%</td>
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<tr>
<td>Completed a Bachelor’s Degree</td>
<td>40</td>
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<tr>
<td>Completed a Master’s Degree</td>
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<td>9.9%</td>
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<tr>
<td>Completed a Doctoral Degree (PhD)</td>
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</tr>
<tr>
<td>Completed a professional degree program (MD, DD, JD)</td>
<td>1</td>
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<tr>
<td>Completed a professional training program (cosmetology, CAN, GVAC, massage therapy, etc.)</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Received certifications in specific training affiliated with my field</td>
<td>11</td>
<td>12.1%</td>
</tr>
<tr>
<td>Studied music performance, music theory or composition, or conducting in college or graduate school</td>
<td>18</td>
<td>19.8%</td>
</tr>
<tr>
<td>Studied music therapy</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>5.5%</td>
</tr>
</tbody>
</table>
  - Belonged to a (Professional) Music Fraternity (1)
  - British College (ages 16-18), unsure of American equivalent (1)
  - Currently studying audio engineering (1)
  - Professional degree candidate (1)
  - Successful completion of DMA, just waiting for graduation (1)

### Previous Counseling and/or Psychotherapy:

- **Yes**                                                                      | 26    | 28.6%      |
- **No**                                                                       | 57    | 62.6%      |
- **Prefer Not to Answer**                                                     | 2     | 2.2%       |

* participants could choose multiple responses.
Overall, the sample self-identified as predominately White (75%), in their 20’s (67%), from a middle class family-of-origin (55%), with at least a four-year college degree (56%), and no previous counseling or psychotherapy (63%). The sample consisted largely of cis-gender (74%) participants, with cis-gender males (55%) making the majority although 14% of participants identified in a gender non-conforming way. Similarly, although the majority of the sample identified as “straight” or “heterosexual”, at least 28% of the population identified as non-heterosexual and/or queer. Additionally, because participants were asked to select all types of musical performance they engage in, multiple selections could be made. From these selections, 68.5% of the sample identified as performing instrumental music and 31.5% of the population identified as performing vocal music; the crossover between these could not be determined due to the anonymity of the survey.

**Descriptive Data: Standardized Measures**

Participants completed a total of four standardized scale measures (which included subscales within the SPANE and Flow State Scale). Each measure was scored following procedures specified by the authors. Their scores are presented below in Table 3.

Table 3: Aggregated Scores of Four Standardized Scale Measures

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<tr>
<th>Scales</th>
<th>n</th>
<th>Min</th>
<th>Max</th>
<th>Average</th>
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</thead>
<tbody>
<tr>
<td>Flow State Scale:</td>
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</tr>
<tr>
<td>• Challenge-Skill</td>
<td>70</td>
<td>9</td>
<td>20</td>
<td>16.7286</td>
</tr>
<tr>
<td>• Action-Awareness</td>
<td>70</td>
<td>9</td>
<td>20</td>
<td>15.6857</td>
</tr>
<tr>
<td>• Clear Goals</td>
<td>69</td>
<td>6</td>
<td>20</td>
<td>17.6377</td>
</tr>
<tr>
<td>• Unambiguous Feedback</td>
<td>70</td>
<td>4</td>
<td>20</td>
<td>16.0286</td>
</tr>
</tbody>
</table>
Correlations

Marjorie Postal, the Smith College School for Social Work statistician, used SPSS to produce a Pearson Product Coefficient Correlation matrix with two-tailed test of statistical significance to examine the statistical relationships between scale and sub-scale scores. Table 4 presents the correlation data for all scale and subscale scores and the statistical significant of their relationship to one another.
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<td>Flow: CUDOS</td>
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</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Findings

Hypothesis I

The results show that there are a positive and statistically significant correlation between three SPANE-P subscale scores and scores on three of the Flow Subscales (Challenge-Skills, Sense of Control, and Autotelic Experience) (Table 4). Additionally, all but three of the Flourishing Scale subscale scores are positively and significantly related to scores on seven of the nine Flow Subscales (Challenge-Skills, Action Awareness, Concentration, Sense of Control, Loss of Self-Consciousness, Transformation of Time, and Autotelic Experience) (Table 5).

Table 5: Significant Correlations of Flow State Subscales versus Measures of Well-Being

<table>
<thead>
<tr>
<th>Flow State Subscales:</th>
<th>SPANE-P</th>
<th>FLOURISHING</th>
<th>SPANE-N</th>
<th>CUDOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Challenge Skills</td>
<td>.436</td>
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<td>.247</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Clear Goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Unambiguous Feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Concentration</td>
<td></td>
<td>.297</td>
<td>-.276</td>
<td></td>
</tr>
<tr>
<td>o Sense of Control</td>
<td>.286</td>
<td>.324</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Loss of Self Consciousness</td>
<td></td>
<td>.297</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Transformation of Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Autotelic Experience</td>
<td>.388</td>
<td>.302</td>
<td>-.304</td>
<td></td>
</tr>
</tbody>
</table>
**Hypothesis II**

The results show that there are positive and statistically significant correlations between scores on the CUDOS scale and scores on three of the Flow Subscales (Challenge-Skills, Sense Concentration, and Autotelic Experience) (Table 4). There were no statistically significant correlations between scores on the SPANE-N and any of the Flow State Subscales. Several of the SPANE-N and Flow State Subscales instead showed weak correlations and two Flow State Subscales showed statistically null correlations (Transformation of Time (-0.56) and Autotelic Experience (0.32)).

**Hypothesis III**

To test this, the gender variable was re-coded into three categories: female-identified (including trans female), male-identified (including trans male and male of trans experience), and gender non-conforming. Participants who preferred not to respond or did not provide a response were removed from the recoding for the purposes of testing this hypothesis.

Table 6: Recoded gender identity demographics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Percentage of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male identified</td>
<td>49</td>
<td>57.6</td>
</tr>
<tr>
<td>Female identified</td>
<td>16</td>
<td>18.8</td>
</tr>
<tr>
<td>Gender Non-Conforming</td>
<td>20</td>
<td>23.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>85</td>
<td>100.0</td>
</tr>
</tbody>
</table>

After the gender variable was recoded, basic descriptive scores were produced.
Table 7: Mean Scale Response Scores by Gender

<table>
<thead>
<tr>
<th>SCALE</th>
<th>SCORING RANGE</th>
<th>MEAN, BY GENDER</th>
<th>MALE</th>
<th>FEMALE</th>
<th>GNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUDOS</td>
<td>0-64</td>
<td></td>
<td>33.5750</td>
<td>33.8462</td>
<td>36.8333</td>
</tr>
<tr>
<td>FLOURISH</td>
<td>8-56</td>
<td></td>
<td>44.4545</td>
<td>43.2308</td>
<td>42.7500</td>
</tr>
<tr>
<td>SPANE-P</td>
<td>0-30</td>
<td></td>
<td>21.6977</td>
<td>20.6667</td>
<td>21.1667</td>
</tr>
<tr>
<td>SPANE-N</td>
<td>0-30</td>
<td></td>
<td>16.2093</td>
<td>17.3077</td>
<td>17.9167</td>
</tr>
<tr>
<td>SPANE-AB</td>
<td>-24 – 24</td>
<td></td>
<td>5.4884</td>
<td>3.3333</td>
<td>3.2500</td>
</tr>
<tr>
<td>Flow: Challenge-Skills</td>
<td>4-20</td>
<td></td>
<td>16.7273</td>
<td>16.0769</td>
<td>17.3846</td>
</tr>
<tr>
<td>Flow: Action-Awareness</td>
<td>4-20</td>
<td></td>
<td>16.0455</td>
<td>14.9231</td>
<td>15.2308</td>
</tr>
<tr>
<td>Flow: Clear Goals</td>
<td>4-20</td>
<td></td>
<td>17.6136</td>
<td>16.7500</td>
<td>18.5385</td>
</tr>
<tr>
<td>Flow: Unambiguous Feedback</td>
<td>4-20</td>
<td></td>
<td>15.8636</td>
<td>15.5385</td>
<td>17.0769</td>
</tr>
</tbody>
</table>
Oneway ANOVA tests were run for each of the three redistributed gender categories by each of the nine Flow State subscales to assess for any differences in experience of flow by gender identity. This analysis showed a significant difference in the Flow State: Sense of Control subscale ($f(2,67)=3.240$, $p=.045$) As a measure of further describing this difference, a Bonferroni post hoc test was also run. This test determined that the significant difference in Flow State: Sense of Control lay between the female-identified ($m=13.69$) and the gender-non conforming ($m=16.77$) groups. No other Flow State subscale showed significant difference in scores based upon gender.

**Other Tests**

On an exploratory basis, T-tests were run to determine if there were significant differences in experiences of flow (as measured by the Flow State subscales) for participants who had participated in counseling or psychotherapy versus those participants who responded that they had not. No significant differences were found.
The Experience of Flow: Open-Ended Responses

In addition to empirically validating that a flow state (as experienced during the performance of live music) impacted subjective well-being in young adults, this study sought to thematically explore how respondents described what they experienced during and following a flow state experience.

Theme 1: Symbolic, Perceptual Experiences of Emotional and Physical State Changes

The first (and one of the most dominant themes in respondents’ descriptions of themselves during and after a flow state experience) is a described perceptual experience of some change in their body, metacognition, or the shared psychological third space created with others around them. These were described with significant symbolic language and includes experiences such as a sense of dissolving boundaries (physical and emotional), a sense of shifting shape or size (such as a sense of expansiveness or being “larger than oneself”), out-of-body experiences, and body-based responses where there was either some visceral connection to the moment which was unexpected or where they felt they transcended themselves to merge with a greater whole.

- “Transcending the physical to embody the emotional”
- “When I play a particular piece…and experience the different voices intermingling…this all moves through my body and sends my nerve endings tingling. I just feel alive! I am suddenly so present and often moved to tears. Before I know it, I have goosbumps [sic] and an impish smile on my face, often times I start laughing and moving my body uncontrollably dancing to the music…”
- “I felt bigger than myself, like my chest could explode from the pressure of the joy”
- “…movements felt automatic, it was almost as if I was watching myself perform.”
• “…I would often close my eyes and move around with the music so that I lost a sense of place and self. I felt a deep connection to the meaning of the music and the experience of it seemed enveloping.”

• “…start just relying on feeling the vibrations moving through you from the rest of the group and anticipating how you need to move them forward, all subconsciously.”

• “I felt so much a part of this powerful thing, the sound so much more than me alone. I felt the bass drum crash in my bones”.

Subtheme 1A: Experience of Absorption, Merger, or Symbiosis

This emerged as a significant subtype of symbolic, perceptual experience that was often described by respondents as they were experiencing emotional and physical state changes during a flow state experience. This would encompass any feeling of joining, interconnectedness, unity, or lack of distinction between self and other experienced while in ‘flow’. This category does not extend to experiences before, after, or outside of a flow state experience.

• “There’s nothing but music. Nothing else at all. I lose the feeling in my body. I forget the outside world. It’s just the music. To some degree there’s the raw emotion state that drives the music to be what it is…but I don’t quite connect to the emotions. I’m just a conduit of them, and my body and instrument are means to externalize these emotions”

• “…it always feels as if the individuals in the orchestra become a hive mind, moving and performing as one entity…”

• “During one performance I felt, for one of the first times, that my instrument was truly an extension of my body…”

• “…tapping into a crowd’s energy, adding my own and feeling that symbiosis…”
• “I love touching into this elevated state of being…with people who are also touching into it because I feel somehow connected through means beyond intellectual comprehension. There’s something spiritual about it that I cannot describe but certainly feel.”

• “It’s an almost Zen state, feels like I’m not doing anything but just allowing the moment to exist, allowing the music to flow through me. I stop thinking, I just exist.”

**Theme 2: Alterations in Feelings of Interconnectedness**

Most respondents had a felt sense of increased and/or positive connections with others following a flow state experience. However, some described the experience as carrying over and changing the way they related following being in ‘flow’ while some felt that they only felt differently toward others who shared that particular flow state experience. A small, but significant subset of respondents felt there was no change following a flow state experience or had never been in ‘flow’ but felt more connected nonetheless. Overall, respondents spoke about their relationships with fellow musicians and/or the audience, but a significant number also spoke about how experiences which occurred during performance altered difficulties in connecting and communicating with others.

• “music making with other people feels enriching, wholesome, connecting to a greater whole”

• “…makes me feel empirically attached to others and I tend to feel happiness”

• “It makes me feel connected to something beautiful and to other people. That gives me the feeling of meaning or value being added to my life”

• “Band became a culture for me growing up…I don’t know if the best people were drawn to band, or band made people better, or if it was all just a coincidence – but I’ve always been very grateful to have had that.”
“Music is communication and it connects you with other people in a way nothing else can. And those “conversations” you have with people, can’t be done any other way.”

**Theme 3: Post-Flow State Emotional and/or Intrapsychic Growth**

According to respondents, the experience of a flow state while performing was positively received and participants felt positively during (and after) being in ‘flow’. However, participants also reported or described continued positive emotional and intrapsychic changes following a strong experience of a flow state. They would describe these changes as leading to decreased feelings of anxiety or self-consciousness, increased feelings of empowerment and self-efficacy, and a general overall sense that a flow state experienced during music performance was “therapeutic”.

- “I remember that I am worthwhile, even when socially I feel inept. I remember that joy and know that I have something warm and positive to contribute to others.”
- “It has helped me to build confidence”
- “I feel better. I feel like running endorphins are released…. I feel like I can do things….I feel good…it helps me make friends and talk to people after…I do feel capable and confident”
- “Performing music can give you the greatest feelings in the world…”
- “Music is my self-care and the moment in my week where I’m not trans, I’m not someone’s clinician or partner or friend- I get to just be a musician and that is fantastic.”
- “It alleviates stress, all sense of self. It dissolved ego…impacted my life in a way that I could never fully explain, but its only done it through the positive. Its done it in way [sic] that I cannot fully describe.”
- “It helps mend broken relationships in a faster, yet calmer way.”
• “I tend to over think everything, so losing my self in the music…is like rebooting my brain and starting fresh.”

• “…the entirety of my life, from friendships to relationships to work improved dramatically once I began to command expertise over my instrument and perform.”

• “it allows me to silence the constant nagging part of my mind.”

**Theme 4: Sense of Exuberance**

This theme encompasses any positive emotional and/or existential feelings had by a respondent where the positive feelings were either named as significant, “large”, or comprised a majority of the respondent’s felt experience. It includes named feelings such as “joy”, “bliss”, or “ecstatic” and is also present in descriptions of both the flow state experience itself as well as the resultant feeling of a flow state experience. When it was possible, any positive feelings directly attributable to respondents feeling satisfied with some type of direct compensation (i.e. getting paid to play a gig) were not included in this category.

• “I feel alive, and I feel real, and I feel completely in the moment in a way I don’t feel almost anywhere else”

• “In that rare instance when everything falls into place perfectly, the feeling outweighs anything else.”

• “…it was the most transcendent, powerful, musical and spiritual experience I’ve ever had…”

• “I feel like I’m connected on a deeper emotional level with the people I’m playing with. I also feel extreme euphoria.”

• “The feeling of expression is like therapy when it’s needed, and a great feeling of euphoria can wash over me when I know I was able to induce powerful emotions in somebody else as well.”

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Theme 5: Flow State Experience as Addiction

A significant minority of respondents spoke about a flow state experience using language more commonly associated with substance use and/or addiction. Respondents spoke about craving flow state experiences, sometimes to the point of personal ruin, talked about being in a flow state as a space of feeling inebriated or impaired, and mentioned, dually, both the desirable lust and fearful awe with which they regard a flow state experience.

• “The flow state. No use describing it. You’re lost and it’s perfect. It’s like taking LSD, there’s not way to tell anybody what it was like, but it was profound, life changing, and everything you ever hoped.”

• “It’s definitely some sort of high. An emotional high. A rush of feeling and connectedness— even if you don’t know to what”

• “The thrill before the performance gives me energy and I get a natural high after a good show.”

• “I’m “that guy” the fucked up musician who can’t seem to pull himself together. Wasn’t weed or booze or meth, it was the music itself…at the moment it shows every sign of being a debilitating clinical addiction. It certainly carries all the negative consequences I’m used to seeing in meth addicts”

• “it’s addicting and stressful”

• “…and the emotional high that lasts afterward is one of the strongest emotions I’ve ever felt.”

• “Performing is like a drug. You get a temporary adrenaline rush from it…”

• “Performing is a flow state, it just happens, and it’s good….until I go through a period of NOT performing. Then its absence becomes rather similar to drug withdrawal.”
**Theme 6: Visibility and Attention**

The last theme which frequently arose in nearly all of the open-ended questions is a linguistic one. Many participants described some part of live music performance and/or the flow state experience in terms of their individual visibility to others including the amount of attention they felt they were receiving and how this did or did not transform throughout their performance or after. While, thematically, these responses do not form a cohesive property of a flow state experience, the language of visibility and of visualizing (e.g. ‘being seen’, ‘closing my eyes’, ‘letting people see me’) appeared in a significant number of responses. This category represents a sample of that language presented without discerning between physical or symbolic “seeing” or “being seen”. This category does overlap with some of the other categories as visibility and attention align with interconnectedness and can also be perceptual experiences.

- “…I feel powerful I feel seen I feel heard.”
- “…seeing people enjoying and feeling the music.”
- “…less feelings like I’m being watched- more feeling connected to the other performers and what we’re making.”
- “being seen, validation from others, satisfaction…”
- “…and seeing the effect of our music on the audience.”
- “…and it not mattering that anyone else was there, what they might think, how they were looking at me…”

**Limitations and Biases**

Because this study was conducted from a convenience sample of fewer than 70 people, the results of these findings cannot be generalized. And, while there is something of a range of demographic information on respondents, because the survey was written in English, presented
via an online platform, and advertised largely through online outlets, this study represents a small and homogenous a sample. Additionally, because the study was conducted anonymously via the internet, questions could not be discussed with respondents to check for understanding nor could any of the responses of the respondents be verified for authenticity nor veracity.

Several tools within the study present limitations to understanding these findings, as well. The CUDOS tests for specific symptoms of depression as identified by the DSM-IV and experienced by the respondent in the past week. As such, the CUDOS inquires primarily about symptoms of unipolar, “typical” depression; depression related to bipolar disorder, trauma, grief, or other “atypical” experiences of depression are excluded.

Similarly, the Flow State Scale itself is not a “best fit” measure of a flow state experience. Jackson and Marsh (1996) identified that flow is best measured through a mix of measures but that their Flow State Scale was an opportunity to attempt to quantify an experiential occurrence. They revised the Flow State Scale in 2002 (Flow State Scale-2) specifically for quantifying flow state experiences in athletics. And, while the FSS-2 has been utilized in more recent research on experiences of flow in other activities, it does not appear to have the same base of research within the musical community.

Additionally, flow is an ephemeral state. Researchers have repeatedly identified the need to investigate an experience of a flow state immediately after participants experience it. In short, flow is best measured in the present. This study inquired about flow state experiences in the past year. In the open-ended responses, respondents wrote about flow state experiences they had over the course of their lives. This limits the ability to explore the causation of shifts in personal well-being and whether they are impacted by flow state experiences.
Lastly, this study was not constructed nor reported without bias. I, myself, have participated in both instrumental and vocal performance throughout the past two dozen years. I also have experienced a flow state while performing. These experiences both contributed positively to the way I was able to construct this study and also potentially negatively in that I did not wish to influence the study nor interpret the results based upon personal experience. In addition, because I comprise a specific demographic group and set of experiences, this survey may not have been as accessible or understandable by those musicians who have not shared similar musical journeys.
CHAPTER V

Discussion

The purpose of this research study was two-fold: (1) to explore the impact experiencing a flow state during live music performance has on the personal well-being in emerging and young adults and (2) to postulate a theoretical basis for what is occurring during a flow state which may impact personal well-being. This chapter presents relationships of the major findings to existing literature, limitations of the study, and implications for future research.

Experiences of Flow

The Flow State Scale (FSS)’s nine subscales each correlate to either a condition for or characteristic of a flow state experience. The subscales of the FSS do not purport to quantify a flow state experience as occurring at a fixed numerical point but, instead, can interpretively point to the ease and likelihood with which flow may be achieved or have been achieved by the participant. Research consistently points to the balance of challenge and skills, a sense of clear goals, and receiving of unambiguous feedback as necessary conditions for a flow state to occur. Research more often than not additionally quantifies total concentration as a condition for flow to occur rather than a resultant of a flow state. Typically, these are considered the easier components of flow to achieve and are representative of a “light flow” experience. The findings in this study support these conditions for flow; they are fairly universally experienced across genders and demonstrate a high rate of occurrence.

The characteristics which result from flow are more difficult to achieve and are said to occur only in a state of “deep flow”. These characteristics are a merging of action and awareness, a sense of total control, a loss of self consciousness, and, most difficult to experience,
the transformation of time. The findings should support these occurring in lesser numbers, but still occurring in order for a flow state to have occurred. The findings in this study also support these characteristics as emerging from the flow experience.

Autotelic experience, or enjoyment, occupies a space of both necessities to a flow state experience (Csikszentmihalyi actually uses it interchangeably with flow at certain junctures) as well as being too broad to singularly attribute to the experience of flow; something can be enjoyable even when it does not result in flow nor is a resultant of flow. Given its unequivocal linkage with the concept of flow, the moderately statistical correlation of autotelic experience with a flow state (as assessed by the Flow State Scale) was unexpected. The one prevailing thread binding nearly all flow state research together is its reliance on strong participant reports of autotelic experience to indicate the presence of flow. It is difficult to infer what may have lead to the less strong link between total enjoyment and flow as assessed for this study.

It is worth taking into account that this study was conducted anonymously via the internet and in English. Yet, it was accessible worldwide and some participants identified as not living in the United States; no information was available on whether English was a language of fluency for them. And, because the survey was disseminated to a convenience population through the internet, there was no opportunity to clarify or assist those participants who might not understand a question or term or those who approached the survey very concretely. Thus, there is some unintentional bias built in to the survey which favors English-speaking emerging and young adults with both a concrete knowledge and abstract utilization of the language. The capacity for self-reflection was an additional unintended bias which was built into the survey design. A handful of participants either answered concretely, answered seemingly with some degree of alexithymia and associated dissociation from their corporeal or sensory experience, or provided
responses which illuminated the hetero/cisnormative, patriarchal, and racist leanings of collective anonymity through the internet. All three of these conditions of response were noted within the qualitative responses; without any measure of checks and balances, it is difficult to assess in what ways (if any) their responses also impacted the quantitative measures of flow state and subjective well-being.

**Gender Differences and Experiences of Flow**

The only statistically significant finding based on gender was the rate with which those who self-identified in a gender non-conforming way experienced “paradox” of control statements where “a sense of exercising control is experienced, without the person actively trying to exert control” (Jackson & Marsh, 1996, p. 19). An example of a statement in this subscale to which participants were asked to respond included “I have total control”. Jackson and Marsh (1996) defined the most salient aspect of this subscale as “the potential for control, especially the sense of exercising control in difficult situations” (p. 19). Participants who self-identified their gender as ‘gender non-conforming’ (neither male or female on a binary) demonstrated a statistically significant more frequent and/or intense experience of feeling a sense of total control resulted from the experience of a flow state than participants who self-identified their gender as ‘female’.

In considering why participants who identified as gender non-conforming felt a greater sense of control than participants who identified as female during and following a flow state experience, the sociological and cultural construction and reinforcement of binary gender is the most obvious way to explore a potential causation. As an increasing number of people are choosing to construct and/or perform their gender identity in non-binary conforming ways, the
research around non-binary gender construction is growing. However, this is an area very much open to interpretation and to future potential avenues of study.

For those who actively identify (at least to themselves) as deviating, in some aspect, from the culturally expected and reinforced gender performance associated with their biological sex, disclosure of this gendered autonomy is often difficult. Disclosing about the way one is choosing to perform gender in non-conforming ways, opens individuals up to scrutiny from both those close to them as well as those not known to them; this scrutiny often comes in the way of having their difference evaluated against the norm and has the strong potential of resulting in feelings of shame and a conversely decreased feeling of autonomy over one’s gendered construction.

As a counterpoint, the way ‘female’ gender is culturally constructed, interacted with, and reinforced is, in part, through a reiteration of female-ness being ascribed increased dependency and decreased autonomy; literally, to live as ‘female’ is to live with a constant reinforcement that your gender identity correlates with the antithesis of a sense of control. The loss of self consciousness experienced during a flow state coupled with the psychically generative aspects of being in flow may serve to ameliorate some of the aforementioned levels of shame around gender identity for those who already self-identify as ‘gender non-conforming’ which may allow them to experience the feeling of control they cultivated through the continuous construction of their particular non-binary gender. Participants who identify their gender as ‘female’, however, often do not have a cultural or subcultural reinforcement for challenging their cultured gendered narratives and may not have a subjective expectation of experiencing themselves as gaining increased control or autonomy through a flow state experience.
In addition to the findings about the intersection of gender with the “Sense of Control” subscale, while not coded as statistically significant, those participants who self-identified as ‘female’ reported a considerably higher mean rate of a transformation of time during a deep flow state. Researchers appear chronically perplexed by the transformation of time characteristic as it is considered part of the deepest flow state, most difficult to achieve or experience, and frequently has empirically proven impact on any other part of the process (Fritz & Avsec, 2007; Sinnamon, Moran, & O’Connell, 2012). This finding could indicate that participants who self-identified as “female” experience deeper states of flow; if this were true, then this finding would also predicate participants identifying as “female” as benefiting to a greater degree both interpersonally and intrapersonally from a flow state experience. While the sample of this study was relatively small and these results can not be generalized, the experience of flow states specifically through different mediums is an area of study which has not received much attention. While research into overall measures or descriptors of flow state experiences have come back depicting slight gender variations (if any), some research has begun exploring gendered experiences of flow states centralized through a certain activity or classification of activity.

Waterman (2004) asserted that flow experiences were necessary for identity formation as they increased intrinsic motivation. Expounding upon this research, delineated the necessity of flow experiences for identity development as impacting personal expressiveness and increasing self-awareness, two qualities which, when working in tandem, could motivate individuals to seek
out the positive growth opportunities they need. Specific studies examining gendered\(^1\) participation in flow-producing activities found that females participated more in prosocial, creative, performing arts, and academic activities and participated less in team sports ((Passmore & French, 2001). For example, in a study of Spanish young adults participating in coordinated physical activity (sports) Jiménez-Torres, Godoy-García, and Godoy-Izquierdo (2012) found that men experienced higher and more frequent flow states. And, although there is a dearth of information about ‘female’ gender identity development through musical performance (especially when assessing for flow experiences), the findings of this study that ‘female’ self-identified participants experienced more frequent and/or deeper states of flow would be consistent with the current literature.

However, flow state research has begun to expand and look into how experiences of flow interface with identity development and, correlationally, with gendered identity development. Little research has been done around gendered participation in activities and identity development as it intersects with flow. Sharp, Coatsworth, Darling, Cumsille, and Ranieri (2007) found that the way adolescents and young adults self-identified with an activity (versus how it was culturally-defined as ‘for’ them or ‘not’ based on gendered stereotypes) had more of an impact on identity development than participation in traditionally stereotyped activities. Certainly, exploring the manifestation and experience of flow by different genders (including genderfluid or non-binary individuals) within various activities is another potential avenue of research.

\(^1\)“Gendered participation” in this case refers to only “male” and “female”: the binary genders. Gender non-conforming participants were either not studied or their gender identity was recorded in strictly binary ways.
Flow and the Process of Dedifferentiation

The process of dedifferentiation was assessed through the qualitative narrative themes generated from this study. The findings of this study support the hypothesis that the theoretical relational developmental state of dedifferentiation is occurring within a flow state where the flow state serves as a transcendent function allowing for dedifferentiation to occur on an intrapsychic level. Dedifferentiation is described as a felt experience of merger, union, or oneness with another where there is a loss of identification with a separate self (as it is absorbed momentarily in the merger), a perceptive sensory shift where everything from the experience of time, felt state of matter, and sense of joining completely with another is present. The correlates to these in a flow state- a merging of action and awareness, loss of self-consciousness, and the transformation of time- were found to be present, all in statistically significant numbers. These categorical characteristics are most integral to states of flow and most salient to the process of dedifferentiation, thereby providing the cornerstone for continued exploration of the flow state as a proxy for dedifferentiation.

For dedifferentiation to have occurred during a flow state experienced during a live music performance, the participant would have had to experience the performance as a form of transgressive eroticism. One of the ways in which eroticism becomes transgressive is when it is viewed by others; the power of visibility and of being seen is integral to the experience. So many participants responded using language of visibility to describe their experience of interconnectedness or their acknowledgement of playing with and/or for others. Participants frequently referred to “seeing” or “being seen” by the audience. Interestingly, many participants spoke about this being atypical of their experiences in connection with others. Several participants mentioned nearly debilitating levels of social anxiety which seemingly evaporated
when they were either performing or in a flow state. Noting the frequency of the language of visibility and its association with experiences of transgressive eroticism provides a foundational stepping stone for the occurrence of dedifferentiation.

Thematically, the language used by participants to describe their flow state experiences overlaps significantly with the language used to describe the felt experience of dedifferentiation. Participants infused their descriptions of their flow state experiences with examples of symbolic, perceptual experiences of emotional and physical state changes, particularly ones where there was a felt experience of absorption, merger, or symbiosis. Participants described feeling as though they had merged with their instrument and become one or, more frequently, merged with others. Many participants mentioned that they felt they were connecting with some element of the performance- the music, the audience, other musicians, emotion, or sound- outside of their typical temporal plane. There were frequent references to feeling “outside of” or “transcending” self and environment. The naming of perceptual experiences of symbiosis, absorption, or merger along with a feeling that they took place in a space where the conventional experience of physical and emotional boundaries no longer exist is a direct description of dedifferentiation as conceptualized by Rundel (2015).

As further evidence of a flow state experience being analogous for a state of dedifferentiation, all participants (with the exception of a singular dissenting theme discussed below) spoke about the positive impact experiences of flow during live music performance had on their emotional growth. Some directly named the flow states as “therapeutic” while others described the benefits to their self-confidence and self-efficacy, feelings of relatedness, and overall decreased diffuse anxiety. Most participants specifically mentioned the extended nature of these benefits; they were not simply self-congratulatory, adrenaline-charged temporary boosts
to mood but permanent shifts in their own subjectivity. Because both flow and dedifferentiated states result in increased differentiation and increasingly complex selves, it stands to reason that either state could be occurring.

However, the language around flow, to which participants were exposed (albeit tacitly) through the Flow State Scale is markedly different than the language of dedifferentiation. Flow may occur with greater frequency in social activities (Landry, 2015) but is entered into as a purely individualistic and intentional state of mind. Additionally, because Csikszentmihalyi (1990) believes flow is achieved from the active and conscious organizing of one’s mind through increased attention and control, a sort of vision boarding of ones desires, and meeting a challenge which gently tests your skills, flow nearly becomes something one does rather than something one happens into. States of dedifferentiation, on the other hand, are entered through sets of conditions and even then, not all the time. Some participants described their “flow state” experiences as something they had “trained” or “practiced” for. These descriptions stood out among the qualitative responses for their sheer difference in tone; they sounded enjoyable but practical, grounded, and blasé. Often, only select conditions or characteristics of a flow state were experienced. Descriptions of “flow states” where more of the conditions or characteristics were occurring were frequently marked for the passionate and loquacious responses. These participants appeared to be extolling the virtues and benefits of experiencing a flow state during live music performance while the former group were describing something almost routine or perfunctory.

**Flow, Dedifferentiation, and Subjective Well-being**

For the purposes of this study, subjective well-being was measured using two different scales: the Scale of Positive and Negative Experiences, Positive subscale (SPANE-P) and the
Flourishing Scale. In designing this study, I felt mildly perplexed at how to ask others to quantify their personal sense of well-being. Happiness and, similarly, “optimal experience” (the term Csikszentmihalyi frequently uses interchangeably with ‘flow’) are both highly subjective, culturally-impacted, and transient states of experience. I was interested in exploring an individual’s subjective, pervasive sense of well-being, one that was grounded in something less fleeting than a felt momentary experience. As I began to explore alternative options for assessing positive affectivity, I was additionally looking for those scale measures which held some relevancy for emerging and young adults. Many of the scales I looked at either assessed for a distinct affective state, specific cluster of symptomatology, or assessed well-being in a way that felt discordant with how emerging and young adults might conceptualize their experience (e.g. ‘my life has everything I want’, ‘I am living my ideal’, ‘I have achieved my goals’). Ultimately, I made the choice to include two measures of both positive and negative affectivity as an internal test of validity. Some of the measures of affectivity and well-being are more traditional (CUDOS) and others are either more expansive and general (SPANE) or less associated with affective functioning and more associated with how the participant conceptualizes their life in totality (Flourishing Scale).

The findings of this study add to the ongoing ambivalence about if and how flow state experiences impact a subjective sense of well-being in participants. Nearly all conditions and characteristics of flow (as represented by the embedded Flow State Scale subscales) indicated an average or higher experience of flow. Research presented in Chapter II noted that positive and negative affectivity are not merely dialectically opposite constructs; that is, feeling positive or expressing positive emotion does not necessarily mean that you have a correlative insignificant amount of negative emotion. Positive and negative affects are not experienced
linearly. This was noted in Table 5: Significant Correlations of Flow State Subscales versus Measures of Well-Being in Chapter IV. While aspects of both the SPANE-P and Flourishing Scale were significantly correlated with a reported experience of a flow state, the CUDOS was weakly inversely correlated and the SPANE-N showed no significant correlations to participants reports of their involvement in flow state experiences.

The statistically significant positive correlations to the flow state scale did not match any of the research conducted for this study. One potential reason for this which cannot be overlooked in a discussion of flow or this research is the sheer volume of studies which have attempted to test for the presence of flow within the dual subjectivities of the phenomenological experience of the participant and the scale created to empirically validate an abstract phenomenon.

**Excesses of Flow: Creativity and Addiction**

While flow is considered an “optimal experience” or “state of total enjoyment”, it, much like anything else, can be experienced in extremes. Because the concept of a flow state is that it, itself, is an extreme state (of happiness, absorption, concentration, etc.), it begs the question: what could be more extreme than an extreme? The answer lies within the intended function of both flow and dedifferentiation: ‘excess’.

The collection and sublimated expulsion of intrapsychic ‘excess’, as it was explored in Chapter II, serves as a common point of intersection between the function of a flow state and dedifferentiation. Imagine either a psychic state of flow or experience of dedifferentiation as occurring when a container fills to the top. The hypothetical container, in this instance, is filling with affective ‘excess’. But what is this ‘excess’? In a blogged response to an online debate
over ‘trigger warnings’ at a university, psychoanalytic researcher and clinician Avgi Saketopolou (2014) described what, psychoanalytically, was happening to those participating in the debate:

“the thrill of highly charged affect states, the flow of manic intensity and phobic excitement that is fueled by the vitality of pain and of anguish. Issuing from the maelstrom of this un-metabolizable affective excess the back and forth of the exchange escalated into a state of contagious urgency. This is the territory of trauma: it comes with a certain kind of high-voltage jouissance, a frightening and vertiginous bliss that is painful yet irresistible”.

The “un-metabolizable affective excess” is what fills our hypothetical containers. It is a heightened feeling many associate with adrenaline or a “rush”; it contains both excitement and panic and it is difficult for us to shake off. In fact, we can imagine it as a tennis ball covered in Velcro: every time we have an elevated experience which recalls feelings of both dread and elation which dually exhaust and energize us, this is a point of excess and that excess- the tennis ball covered in Velcro- is not easy to shake off. Instead, it drops into our ‘to be handled’ container and clings to the other experiences like it.

If we only had such an experience very infrequently or in minimal intensities, we would, after a while, either be able to metaphorically peel away the Velcro and lob the ‘excess’ ball elsewhere or we would adapt to it. But, trauma is not often so considerate of our intrapsychic needs that it waits for us to handle things prior to coming back around. Trauma, by its very nature, traumatizes. The excesses collect and stick until we reach a point of saturation: our container is full. This container, poised to overflow, is the extreme of the extreme. How individuals respond to this state of muchness seemingly differentiates between experiences of productive creativity or destructive addiction.
Creativity and substance use both occur during and following experiences of flow. However, they need not occur in connection or conjunction with one another. Instead, they are two responses to overwhelming amounts of affective excess. Creativity, substance use, and flow states all result in engagement with an altered state of consciousness identified by neuropsychologist Arne Dietrich as *transient hypofrontality* or “the temporary downregulation or deactivation of prefrontal areas of the brain” (Richman, 2014, p. 75). When the prefrontal areas of the brain are deactivated (as they are for activities like meditation), some of the energy typically expended toward structural cognitive functioning (like compiling a grocery list or remembering where you left your keys) is free to unbind itself and romp about your psyche, combining ideas in new ways. In this way, flow can facilitate creativity; rather than being solely a place of experiencing total enjoyment, the anxiety accumulated from the affective excesses can be discharged as intrapsychically generative energy.

Csikszentmihayli largely rejects the idea of the intermingling of flow and anxiety. It is his position that any novel experience would generate an amount of anxiety which would not enable a flow state to occur. However, the findings of this study dispute that claim and, instead, validate the link between flow, anxiety, and creativity. If Csikszentmihalyi’s supposition were correct, then it could be hypothesized that flow states would occur more frequently during performance of a prepared musical number or at least one in which the improvisation had been scripted into a previously rehearsed piece. Overwhelmingly, participants in this study did not endorse that hypothesis; improvisation and improvisation occurring at a practice or as part of a “jam session” were reported as facilitating flow state experiences at least as frequently as previously rehearsed stage performance. Because this study did not directly seek to ascertain in
what setting participants were performing when they experienced a flow state, only
generalizations about types of performance and the induction of flow states can be made.

This was not the most surprising and unanticipated result of this study, however. The
most unexpected theme to emerge from the qualitative portion of the survey was the
conceptualization of music performance and, specifically, the experience of flow during music
performance as a form of substance abuse. A sample of participants described it using the
following language: “…it’s like taking LSD…”, “it’s definitely some sort of high. An
emotional high…”, “…I get a natural high after a good show”, “it’s addicting and stressful”,
“performing is like a drug…”, and “[the absence of performing] becomes rather similar to drug
withdrawal”. One participant even felt so strongly about the addictive and deleterious impact of
experiencing flow during live music performance that they insisted research begin to inquire
about the harmful effects of flow as well as the positive:

“…I have thoroughly destroyed my life (and my personal finances and job prospects) in
VERY MUCH THE SAME WAY as a meth addict destroys their life chasing the next
high. This is rarely discussed amongst music/wellbeing studies. Most studies do focus on
the positive benefits self expression (such as musicianship) brings an individual. I've not
yet seen a study explore the potential for great self- harm that musicianship can engender.
For me, I realize it's a DANGEROUS addiction and has been my driving cause to
completely wreck and trash my life.”

While the participant who posted this was the most adamant about the negative impact creativity
and flow have had on their life, their response was very reflective of that of a sizeable minority
of study participants.
If Csikszentmihalyi was correct, then no flow state could or should result in harm or increased anxiety. Without further specific exploration, it is impossible to know how to interpret the findings specific to addiction. On one hand, it can be postulated that, if anxiety increased, then no flow state occurred. But, what if participants very clearly describe being in states of flow (in accordance with all the empirically validated characteristics and constructs of a flow state) and still continue to use language of substance use or report harmful outcomes associated with flow state experiences? This second scenario works as further validation of my hypothesis that what is occurring during a flow state is the process of dedifferentiation. Because dedifferentiation, by definition, requires a concurrent experience of elation and dread as one's ego approaches a point of ego "shattering" in service of razing old, rigid, and damaging structures to allow for new, flexible ego growth, it stands to reason that for some people the experience of flow and/or the concurrent process of dedifferentiation could discontinue abruptly or overwhelm with excess rather than dispel it and result in a feeling of addiction: a craving and longing for the "high" with the associated anxiety of "withdrawal".

**Strengths and Limitations**

Like any research, this study contained a combination of strengths and limitations. Because they often co-occur to different degrees rather than as a dialectical binary of assessment, I will explore them here through the chronological process of this research design and study implementation. One anticipated strength of this study was the use of the dual measures of subjective well-being as a sort of test of internal validity. The fact that the SPANE-P and Flourishing Scale demonstrated a high statistically correlation significance to one another (.686) and that the SPANE-N and CUDOS also demonstrated a significant statistical correlation to each other (.516) indicates that the measurements of subjective well-being were a good fit for this
particular population. This was an instance in which the chosen scales appear to be measuring as intended for the population of the study.

Conversely, one limitation of this study was in the selection of an empirical measure of flow states. There are a multitude of scales and even a multiplicity of conceptualizations of how to empirically test for flow state experiences. Jackson and Marsh themselves have at least three flow state scales to choose from. It was difficult to assess which scales were best measuring flow or what scales elicited the most relevant responses. Responses to the Flow State Scale used in this study were more ambivalent than the narrative descriptions of performers' experiences of flow. Additionally, most measures of flow are designed to collect participants' experiences of flow immediately after happening if not during. Because disturbing a flow state to gather feedback about said state would result in the discontinuation of that flow experience, it would also not be a representative sample experience of flow. Additionally, because participants were asked in the qualitative section to reflect upon resultant outcomes following flow state experiences, in some ways the use of the Flow State Scale following experiences of flow may be a more representative picture of how flow is experienced.

Another limitation of this study was unintended but potential bias in the overall construction and design of the study. As someone who identifies as a "musician" (albeit a non-professional one) my relationship to music and familiarity with flow state experiences during music performance heavily influenced the construction of the qualitative questions in the survey. These questions were pilot tested prior to the survey and this pilot testing likely eliminated much of any unintended bias around familiarity of language or experience.

An additional strength of this study was the multilayered approach to conceptualizing flow. Jackson and Marsh (1996) cautioned that phenomenological experiences of flow cannot be
conceptualized solely through quantitative means. The qualitative open-ended questions served not only as a measure of validity regarding the veracity of reported flow state experiences but allowed for an expansion of the conceptualization of the conditions and characteristics of a flow state experience.

**Implications for Social Work Practice and Future Study**

Although the specific research outcomes in this study cannot be generalized to any population, they do hold some universal implications for social work practice and, specifically, clinical social work practice. Flow states cannot be manufactured nor induced. But, a framework could be established for which, with the optimal balance of task-based challenge and client-provided skills, experiences of flow could be facilitated. This study examined the impact of a flow state occurring during musical performance. Incorporating musical performance into clinical practice is one method of engaging with these results and will be discussed first. I will then broaden the frame to discuss how music might, more generally, be integrated into the therapeutic space in service of the client.

Because the intersections of social work practice, music therapy (or use of music in therapeutic and group sessions), and flow are virtually unexamined, avenues for future study exist in nearly every direction. Flow itself is heavily studied. Typically, however, flow is looked at related to a specific task or category of tasks (e.g. athletic performance, internet gaming, etc.). Finding a way to explore flow across a common intersecting theme versus as it functions in task-specific ways could expand the understanding of the flow experience. Additionally, because flow is construct and phenomenological experience, there is no way to empirically measure it. The variety of quantitative flow state scales seek to assess the presence or intensity of a flow experience, but many of the criteria, especially those assessing for the strength of the
"autotelic experience" can be indicative of the presence of phenomena other than flow, from something as-yet-to-be-discovered down to general enjoyment of one's hobby. This might involve exploring flow for information other than its prevalence amongst various intersections of identity or even expanding the frame of definition to look for potentially new constructs singular to a flow state.

Flow is one of the hallmark conceptualizations of the branch of psychology called Positive Psychology. As such, much of how flow is researched is through the lens of that theory. This leaves room for an expanded understanding of a flow state through sundry other theoretical lenses. The theoretical overlap of a flow state and the psychoanalytic interpretation of dedifferentiation is one such site of potential exploratory and empirical research. This could be approached from several different directions. First, there is a scarcity of research into the transgressive eroticism of activities. Even research based in sexuality touches infrequently in the psychodynamic interplay with transgression or eroticism. Discovering in what previously unexplored arenas flow may already be occurring would also contribute toward an expanded appreciation for how it operates and what, in totality, its benefits are.

Lastly, from a purely theoretical point of view, it would be interesting to challenge Csikszentmihalyi's assertion that those who struggle with anxiety or low feelings of self-efficacy or self-worth are not intrinsically capable of having flow state experiences. Findings in this study clearly showed that participants described flow as having a healing or therapeutic effect. This aligns with the expected outcome of flow being a state of dedifferentiation; dedifferentiation is a site of growth and increased subjective well-being. Exploring the engagement of trauma survivors with flow experiences, especially if done through the integration of music, is an area of research which could be beneficial to social work practice. David Landry
(2015) looked at clinician experiences of flow within the therapeutic session and found that they both occur and lead to more spontaneous, authentic, and generative work in both the therapist and client. Because music is a universal medium that evokes a strong emotionality in those who engage with it, it does not seem that far-fetched that the integration of music into clinical social work or psychotherapeutic practice would not result in increased flow experiences and, by proxy, increased efficacy of treatment. It feels particularly important to explore the impact of these sites of intrapsychic growth on survivors of trauma, particularly complex and chronic childhood trauma as it is a developmental trauma which could stand to benefit most from an intervention which overhauled rigid or harmful existing ego structures.

The purpose of this study was to explore the impact of flow state experiences during live music performance on emerging and young adults. I hypothesized that flow state experiences would lead to an increased sense of subjective well-being and that, theoretically, flow and the relational and developmental state of dedifferentiation were one and the same. The findings of this study support this theoretical hypothesis and provide evidence through both a review of the literature as well as empirical evidence that both occur simultaneously and that there appears to be no delineation between the two or their outcomes. Both flow and dedifferentiation are notable concepts in psychology and are deserving of continued study for the potentiality of their benefits to the field of social work as well as their benefits to the field of psychotherapy at large.
References


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http://doi.org/10.1177/0305735611425903

Appendix A

Informed Consent

2015-2016

Consent to Participate in a Research Study

Smith College School for Social Work • Northampton, MA

Title of Study:

Resolving Dissonance: Instrumental Music Performance as a Vehicle for Dedifferentiation and Personal Growth in Emerging and Young Adults

Investigator(s):

Amanda N. Sposato
Smith College School for Social Work
asposato@smith.edu

413.XXX.XXXX

Introduction

- You are being asked to be in a research study of the occurrence of a flow state or merger during instrumental music performance and the impact of experiencing this state on personal well-being.

- You were selected as a possible participant because you are between the ages of 18 and 35, play instrumental music, have played the instrument you plan to reference for at least one year, and have rehearsed and/or practiced and performed publicly at least once during the last year.
We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

**Purpose of Study**

- The purpose of the study is to explore the role of musical performance as a vehicle for personal growth and well-being for emerging and young adults.
- This study is being conducted as a research requirement for my master’s in social work degree.
- Ultimately, this research may be published or presented at professional conferences.

**Description of the Study Procedures**

- If you agree to be in this study, you will be asked to do the following things:
  - You will be asked to complete an anonymous, online survey.
  - Prior to the survey, there will be a brief screening survey to fill out to ensure you meet inclusion criteria.
  - This survey will take an average of 15-20 minutes to complete.
    - This survey will consist of four current scales measuring experiences of flow state, self-reported feelings of depression, and conceptualization of personal well-being and flourishing. These four scales will be followed by five open-ended questions requesting narrative responses.

**Risks/Discomforts of Being in this Study:**

- The study has limited anticipated potential for risk or discomfort. The only anticipated discomfort you may experience from taking this survey is the potential of recognizing a collection of symptoms you have observed about yourself as possible depressive symptoms.
Benefits of Being in the Study:

- There are no expected personal benefits to participating in this survey other than a potential feeling of enjoyment or fulfillment from reflecting upon your experiences performing music.
- The benefits to social work/society are that your participation will help contribute to the swiftly-growing field of research about musical performance and personal well-being as well as the use of music and other expressive therapies.

Confidentiality

- This study is anonymous. We will not be collecting or retaining any information about your identity.

Payments/gift

- You will receive no financial compensation, incentives, or gifts for your participation in this research study.

Right to Refuse or Withdraw

- The decision to participate in this study is entirely up to you. You may refuse to take part in the study at any time (up to the date noted below) without affecting your relationship with the researchers of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any survey questions save for the single mandatory open-ended question, as well as to withdraw completely up to the point noted below. If you choose to withdraw, I will not use any of your information collected for this study. You must notify me of your decision to withdraw by email or phone by April 15, 2016. After that date, your information will be part of the thesis, dissertation or final report.
Right to Ask Questions and Report Concerns

- You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Amanda Sposato at asposato@smith.edu or by telephone at 413.XXX.XXXX. If you would like a summary of the study results, one will be sent to you once the study is completed. If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

Consent

- Your signature below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep.
Appendix B
Recruitment Email and Response

On Sun, Feb 21, 2016 at 6:16 PM, Amanda Sposato wrote:

Hi David!

I’m writing to you as the director of the Holyoke Civic Symphony (which is also affiliated with Holyoke Community College and serves as a course for HCC) and musical director of Edward’s Church as well as a long-time working musician to ask if you’d be willing to please assist me in completing my master’s thesis for Smith College School of Social Work by being willing to forward a future email from me containing a link to my anonymous, online-survey seeking to interview musicians (or vocalists) between the ages of 18 and 35 years old? I’m asking for assistance from people affiliated with musicians, musical ensembles, or college-aged and young adults. Below, I have included a little information about who I’d be interested in having participate, but you would only have to pass along the survey link! I’m interested in learning about the experiences of 18-35 year olds who play music and have performed publicly at least once in the past year and experiences of “flow” they have while performing; I’m also hoping to learn about how experiences of flow in musical performance correlate with personal well-being. Here is more information about the type of participant I’m hoping to learn from:

"Do you love how you feel when performing live music? Have you ever had the feeling of “losing yourself” in the music while you perform? Does performing live music impact how you feel for the rest of the day/night/week/longer? If so, I want to hear how performing live music has impacted you! I am seeking participants for my master’s thesis on experiences during music performance and well-being in emerging and young
adults. I am asking participants to complete a short, anonymous survey online about the experiences of musicians while performing live music and how those experiences may impact your life outside of performing.

I am looking for participants who are between the ages of 18 and 35, have been playing a musical instrument for at least one year, and have practiced or rehearsed and performed publicly at least once within the past year. Participation in this survey is anonymous and conducted online through Qualtrics, removing any and all identifying information. The survey consists of several rating scales and a few descriptive questions where you can share more specific aspects of your personal experience. It takes approximately 15 minutes to complete."

Please write back to me at asposato@smith.edu (or reply to this email) letting me know if you would be willing to pass along my survey link to help me recruit participants for my thesis! If you are willing, I will send you a link to the survey and a recruitment ‘blurb’ which will be approved by the Smith College School for Social Work Human Subjects Review Committee (HRSC).

Thank you for taking the time to consider helping me with my research and please do not hesitate to contact me with any questions you may have!

Best,

Amanda Sposato

MSW Student

Smith College School for Social Work

Northampton, MA  01060
Please assist me in completing my master’s thesis by forwarding this email and/or survey link to any musicians you know between the ages of 18 and 35 who play instrumental music. More information below!

Do you love how you feel when performing live music? Have you ever had the feeling of “losing yourself” in the music while you perform? Does performing live music impact how you feel for the rest of the day/night/week/longer? If so, I want to hear how performing live music has impacted you! I am seeking participants for my master’s thesis on experiences during music performance and well-being in emerging and young adults. I am asking participants to complete a short, anonymous survey online about the experiences of musicians while performing live music and how those experiences may impact your life outside of performing.

I am looking for participants who are between the ages of 18 and 35, have been playing a musical instrument for at least one year, and have practiced or rehearsed and performed publicly at least once within the past year. Participation in this survey is anonymous and conducted online through Qualtrics, removing any and all identifying information. The survey consists of several rating scales and a few descriptive questions where you can share more specific aspects of your personal experience. It takes approximately 15 minutes to complete. When you go to take the survey at LINK, you will read through an informed consent document that you must agree to, prior to taking the survey. If you have any questions or concerns regarding your interest in participation, you can contact me at asposato@smith.edu. I look forward to learning about your experience and thank you in advance for your participation!

This study protocol has been reviewed and approved by the Smith College School for Social Work Human Subjects Review Committee (HSRC).
From: David Kidwell

Subject: Re: Help recruiting for master's thesis on personal well-being and experiences of "flow" in music performance

Date: February 22, 2016 at 7:47:44 AM EST

To: Amanda Sposato

Hi Amanda,

Sure, I'd be happy to help! Hmm, do we have anyone in the orchestra besides you between 18 and 35, lol?

I can forward your survey to the orchestra and my church choir.

See you tonight -- no snow!

David
Appendix C

Recruitment Flyer

DO YOU LOVE PERFORMING MUSIC?

If so, please consider taking my survey regarding the effects of musical performance on well-being in emerging and young adults.

survey at:
TINYURL.COM/PERFORMINGMUSIC

This study protocol has been reviewed and approved by the Smith College School for Social Work Human Subjects Review Committee (HSRC).
Appendix D

Human Subject Review (HSR) Application

2015-2016

Smith College School for Social Work

Human Subjects Review Application

Project title:
Resolving Dissonance: Instrumental Music Performance as a Vehicle for Dedifferentiation and Personal Growth in Emerging and Young Adults

Name of researcher: Amanda Sposato

Check one: X MSW _____ PhD

Home phone: (413) XXX-XXXX  Email: asposato@smith.edu

Research advisor: Dr. Marianne Yoshioka

The signature below testifies that I, as the researcher, pledge to conform to the following: As one engaged in research utilizing human subjects, I acknowledge the rights and welfare of the participants involved. I acknowledge my responsibility as a researcher to secure the informed consent of the participants by explaining the procedures and by describing the risks and benefits of the study. I assure the Committee that all procedures performed under the study will be conducted in accordance with those federal regulations and Smith School for Social Work policies that govern research involving human subjects.

Any deviation from the study (e.g.: change in researcher, research methodology, participant recruitment procedures, data collection procedures, etc.) will be submitted to the Committee by submitting a Protocol Change Form for which you MUST receive approval prior
to implementation. I agree to report all deviations to the study protocol or adverse events IMMEDIATELY to the Committee.

Researcher: Amanda Sposato

IN THE SECTIONS BELOW WHERE DESCRIPTIONS ARE REQUESTED, BE SURE TO PROVIDE SUFFICIENT DETAIL TO ENABLE THE COMMITTEE TO EVALUATE YOUR PROCEDURES AND RESPONSES.

1. DESCRIPTION OF RESEARCH PROJECT INVOLVING HUMAN PARTICIPANTS

The primary purpose of this study is to determine whether musical performance can increase the felt sense of personal well-being in emerging and young adults (age 18-35). By theoretically conceptualizing the observed flow experience as an object relational state of dedifferentiation this study examines the association between experiences of flow (a transcendent state), negative affective and personal well-being.

The experience of flow, initially described by Csikszentmihalyi (1975) as the “holistic sensation that people feel when they act with total involvement” (p.36), is a multi-faceted and transcendent experience characterized by “a state of full engagement, control, concentration and action awareness” (Chirico et al., 2015, p.2). The flow experience has been explored initially as
an occurrence appearing during sports activities. More recently, flow has been described as occurring during three distinct parts of the musical process; the context of musical performance is the setting this mixed methods study hopes to explore this phenomenon within.

A sample of 50 adults minimally who have publically performed music in the last year will be asked to complete 3 standard measures and 3 open ended questions focused on their experience of flow and its relationship to their experience of well-being. Data will be examined through descriptive and correlational statistics and the identification of content themes. Findings will be interpreted through a neo-Kleinian lens where the flow state can be theoretically conceptualized as a state of dedifferentiation, which is defined as a sense of merger, union, or oneness experienced with another and/or others after one has achieved psychic differentiation. Dedifferentiation, as well as the state of flow, is attributed to reductions in depression and anxiety as well as increases in creativity, feelings of happiness, and personal well-being.

2. PARTICIPANTS: If you are only observing public behavior, skip to question d in this section.

a). How many participants will be involved in the study?

- ___12-15
- _X_ ≥ 50
- ___ Other (how many do you anticipate)

b). List specific eligibility requirements for participants (or describe screening procedures), including exclusionary and inclusionary criteria. For example, if including only male participants, say so, and explain why. If using data from a secondary de-identified source, skip to question e in this section.

Inclusion Criteria

- Be between 18 and 35 years of age
- Play a musical instrument or sing as part of an ensemble or performance
- Have played the instrument, taken lessons, or rehearsed as part of an ensemble or group they are responding about for at least 1 year
- Have practiced the musical instrument or performance pieces at least once in the past year
- Have performed publicly at least once in the last year

**Exclusion Criteria**

Because experiences of a flow state have been empirically-demonstrated to emerge when the level of skill meets the required challenge of a task and because this thesis wishes to explore how experiences of flow manifest in relationship to others, “casual” or on-the-spot musical or vocal performances such as singing in the car or making and posting videos of individually-made covers to social media sites

c). Describe how participants will be recruited. **Be specific: give step-by-step description.**

*(Attach all flyers, letters, announcement, email messages etc. that will be used to recruit. Include the following statement on any/all recruitment materials/emails/postings, etc:*

Participants will be recruited electronically through email notification and through social media. the Holyoke Civic Symphony will be forwarded an email message from me inviting orchestral members to participate. Include the email message for all of these recruitment procedures and also, include permissions to do this from these institutions.

I have written to the director of a local symphony orchestra as well as the director of jazz ensembles at Mount Holyoke College to request assistance in recruiting participants for this study by sharing a future email containing the survey link and recruitment information found below. I have included these emails at the end of this application and have received one affirmative response as well as continuing to currently wait for a response about recruitment
from the other at this time. Recruitment will primarily be done through social media and targeted Internet forum posting, however. I will post on multiple Facebook pages and groups that I’m affiliated with including a Mount Holyoke College alumna group and a local page. I will post the below recruitment post on the community forum Reddit in survey participation, social work, and music sub-Reddits. I will ask friends to pass my survey link to friends and friends of friends (snowball sampling). I have developed the following scripts to assure consistency when asking those people mentioned to assist in recruiting (see SAMPLE SOCIAL MEDIA POST). I will also post the recruitment ad online and request friends simply “share” my post whenever possible to ensure recruitment continuity.

SAMPLE RECRUITMENT EMAIL:

Dear XXXX,

Please assist me in completing my master’s thesis by forwarding this email and/or survey link to any musicians you know between the ages of 18 and 35 who play instrumental music and may be interested in learning more about the study. More information below!

Do you love how you feel when performing live music? Have you ever had the feeling of “losing yourself” in the music while you perform? Does performing live music impact how you feel for the rest of the day/night/week/longer? If so, I want to hear how performing live music has impacted you! I am seeking participants for my master’s thesis on emotional experiences during music performance and well-being in emerging and young adults. I am asking participants to complete a short, anonymous survey online about the experiences of musicians while performing live music and how those experiences may impact your life outside of performing.
I am looking for participants who are between the ages of 18 and 35, have been playing a musical instrument for at least one year, and have practiced or rehearsed and performed publicly at least once within the past year. Participation in this survey is anonymous and conducted online through an online secure survey site named Qualtrics which is set up to remove any and all identifying information. The survey consists of several rating scales and a few descriptive questions where you can share more specific aspects of your personal experience. It takes approximately 15 minutes to complete. When you go to take the survey at LINK, you will read through an informed consent document that you must agree to, prior to taking the survey. If you have any questions or concerns regarding your interest in participation, you can contact me at asposato@smith.edu. I look forward to learning about your experience and thank you in advance for your participation!

This study protocol has been reviewed and approved by the Smith College School for Social Work Human Subjects Review Committee (HSRC).

SAMPLE SOCIAL MEDIA POST:
Are you between the ages of 18 and 35 and play a musical instrument? Have you practiced/rehearsed and publicly performed at least once during the last year? Do you love how you feel when performing live music? Have you ever had the feeling of “losing yourself” in the music while you perform? Does performing live music impact how you feel for the rest of the day/night/week/longer? If you answered ‘yes’ to these questions, please consider taking approximately 15 minutes to complete an anonymous, online survey which will be used toward my master’s thesis!

I am studying the effects of musical performance on well-being in emerging and young adults. Your participation will help add to the quickly-growing field of research about the
benefits of music. You can find the survey at LINK. Please read through the informed consent and indicate whether you meet all the study criteria. If you have any questions or concerns regarding your interest in participation, you can contact me at asposato@smith.edu. I look forward to learning about your experience and thank you in advance for your participation!

This study protocol has been reviewed and approved by the Smith College School for Social Work Human Subjects Review Committee (HSRC).

d). Is there any relationship between you as the researcher and the participants (e.g. teacher/student, superintendent/principal/teacher; supervisor/clinician; clinician/client, etc.) that might lead to the appearance of coercion? If so, what steps will you take to avoid this situation. For example: “I will not interview individuals who have been direct clients.”

This survey is anonymous and conducted online through a third-party survey site (Qualtrics) and so I will have no knowledge of who chooses to participate in this research.

e). Are the study target subjects members of any of the following federally defined vulnerable populations? (ONLY check if the study focus area is SPECIFICALLY based on any of the listed groups. For instance, if your study is about how persons who are economically disadvantaged access services, you DO check ‘Economically disadvantaged’ category below. DO NOT CHECK IF SOME OF THESE FOLKS MAY BY CHANCE BE IN A MIXED SAMPLE – EXCEPT IF THERE ARE CHILDREN/UNDER 18 YEAR OLDS. Thus: if you are asking about how individuals who live in inner city locations get to services, you DO NOT check any of the categories below, because there is a range of types of people who live in these environments who may wish to participate, and you do not define the population as ‘economically disadvantaged’).

Be aware that checking ‘yes’ automatically requires the HSR Full Review.
If ‘Yes’, check the group(s) all that apply in your study:

___ minors (under 18 years of age) Please indicate the approximate age range of minors to be involved. Participants under age 18 require participant assent AND written consent from the parent/legal guardian. Please use related forms.

___ prisoners

___ pregnant women

___ persons with physical disabilities

___ persons with diagnosed mental disabilities

___ economically disadvantaged

___ educationally disadvantaged

3. RESEARCH METHODS:

(Check which applies)

___ Interview, focus group, non-anonymous questionnaire

_X_ Anonymous questionnaire/survey

___ Observation of public behavior

___ Analysis of de-identified data collected elsewhere (‘secondary data)

() Where did these data come from originally?

Did this original research get IRB approval? ___ Yes ___ No

(Skip to BENEFITS section)

___ Other (describe)
Describe the nature of the interaction between you and the participants. Additionally, if applicable, include a description of the ways in which different subjects or groups of participants will receive different treatment (e.g., control group vs comparison group, etc.).

a). Please describe, with sufficient detail, the procedure/plan/research methodology to be followed in your research (e.g. this is a quantitative, survey based study; tell us what participants will do; etc).

This is a mixed-methods online survey consisting of four public domain, pre-produced quantitative research scales:

1. CUDOS (A Clinically Useful Depression Scale) (add in citation e.g., smith 1999): (Zimmerman et al, 2008): I am using this scale as one of my measures of well-being, specifically feelings of depression

2. Flow State Scale (Jackson and Marsh, 1996): Flow State Scale Researchers of this scale state: “The Flow State Scale (Appendix) may be used for research purposes without any prior written consent as long as appropriate recognition is given, but the first author would appreciate being sent copies of resulting publications (Jackson & Marsh, 1996, p.35) This measure assesses my independent variable, flow, and assess for the presence and/or strength of experienced flow states during musical performance.

3. Scale of Positive and Negative Experiences (SPANE)(Diener & Biswas-Diener, 2009) This scale assesses how frequently participants have experienced certain feeling states in the past four weeks by asking them to rate the frequency they’ve encountered a collection of feelings. Because the CUDOS scale assesses more empirical and clinical markers of depression, this scale will inquire more subjectively about participant’s experiences of various feeling states over a longer period of time.
4. **Flourishing Scale (Diener and Biswas-Diener, 2009)**

This scale asks participants to rate how much they agree or disagree with statements about life satisfaction. It is an appropriate scale for this study as it correlates life satisfaction with more abstract feelings of living an engaged, values-driven, and positive life rather than as measured by more concrete milestones which may not be desired or achieved by this population’s age cut-off.

Also there will be a series of demographic questions and qualitative and open-ended questions about flow / dedifferentiated experiences in instrumental music performance. Participants will fill out the informed consent and be pre-screened for inclusion validity when they click on the survey link to respond. Unless a participant contacts me directly with specific questions or feedback, I anticipate no response with research participants as this would compromise the anonymity of the research.

b). How many times will you meet/interact with participants?

I will have no direct contact with participants. Participants will complete a one-time anonymous, online survey.

c). How much total time will be required of each participant?

The four pre-produced surveys could take anywhere between 3 and 15 minutes to complete. One of the qualitative questions is not optional and could take between 30 seconds and 10 minutes to answer. The other qualitative questions are optional and can take between 30 seconds and 30 minutes to respond to, collectively. Thus, this entire survey could take between 4 and 55 minutes to complete with an average anticipated completion time of approximately 15-20 minutes. Include the email message for all of these recruitment procedures and also, include permissions to do this from these institutions.

d). Where will the data collection occur (please provide sufficient detail)?
Data collection is to occur online through the third-party survey site Qualtrics. This website will serve as the proctor, collector, and keeper of survey responses.
e). If you are conducting surveys, attach a copy of the survey instrument to this application. If you are conducting individual interviews or focus groups, including ethnographies or oral histories, attach a list of the interview questions as an “Attachment”. Label attachments alphabetically, with descriptive titles (e.g.: Attachment A: Interview Questions).
• See Attachment A: Survey Template

4. INFORMED CONSENT: (If you are only observing public behavior, SKIP to next section)
a). What categories of consent documentation will you be obtaining from your participants? (Check all that apply)
X written participant consent
___ written parent/guardian consent
___ Child assent 14-17
___ Child assent, assent 6-13
___ Adult with guardian consent

b). Attach original consent documents. *note: be advised that, electronic signatures and faxed, signed consents ARE allowed. Please describe how you will gain consent.
• Attachment B: Informed Consent

Consent will be obtained through the second page of my electronic survey instrument through electronic “agree” or “disagree” options at the end of the informed consent section. Participants choosing “agree” will be directed to complete the survey.
5. COLLECTION /RETENTION OF INFORMATION:

a). With sufficient detail, describe the method(s) of recording participant responses (e.g., audiotape, videotape, written notes, surveys, etc.)

Participants’ written responses to quantitative and open-ended questions will be collected by the survey website Qualtrics anonymously and aggregated randomly.

b). Include the following statement to describe where and for how long will these materials will be stored and the precautions being taken to ensure the security and safety of the materials.

All research materials including recordings, transcriptions, analyses and consent/assent documents will be stored in a secure location for three years according to federal regulations. In the event that materials are needed beyond this period, they will be kept secured until no longer needed, and then destroyed. All electronically stored data will be password protected during the storage period.

c). Will the recordings of participant responses be coded for subsequent analysis? If you are only observing public behavior, SKIP to next section.

___ Yes
___X No

6. CONFIDENTIALITY:

a). What assurances about maintaining privacy will be given to participants about the information collected?

___X___ 1. Anonymity is assured (data cannot be linked to participant identities)

___ 2. Confidentiality is assured (names and identifying information are protected, i.e., stored separately from data).

___ 3. Neither anonymity nor confidentiality is assured
b). If you checked (2) above, describe methods to protect confidentiality with sufficient detail. Describe how you will maintain privacy of the participant as well as the data

7. RISKS:

a). Could participation in this study cause participants to feel uncomfortable or distressed?
   ___ Yes
   _X_ No

b). Are there any other risks associated with participation (e.g. financial, social, legal, etc.)?
   ___ Yes
   _X_ No

8. COMPENSATION: (If you are only observing public behavior, SKIP to the next section)
Describe any cash or ‘gifts’ (e.g.: coffee shop gift card) that participants will receive for participating in this research (see guidance about payment/gift compensation in the Smith School for Social Work Human Subjects Review Guideline, at the HSR site in the SSW website).

   Participants will receive no financial compensation, renumeration, incentives, or “gifts” for participation in this survey.

9. BENEFITS:

a). Describe the potential benefits for you, the researcher, in conducting this study.

   The only benefits to me in conducting the study is the completion of my research requirements for the Smith College School for Social Work MSW degree and the hence of accomplishment I may experience from that.

b). Describe the potential benefits for individuals who participate as subjects, EXCLUDING payment/gift compensations.
There are no direct benefits to participation. Participants may enjoy reflecting on their experience in musical performance.

c). Describe the potential benefits to the field of clinical social work from this research?

The findings from this thesis contributes to the literature about understanding the effectiveness of expressive therapies. As clinical social workers may utilize these adjunctive approaches, the results have the potential to add to their knowledge.

10. FINAL APPLICATION ELEMENTS:

a. Include the following statement to describe the intended uses of the data:

The data collected from this study will be used to complete my Master’s in Social Work (MSW) Thesis. The results of the study may also be used in publications and presentations.

b. If there are Co-Researchers, cooperating departments, and/or cooperating institutions, follow the following instructions:

If you are working with/conducting your research with a researcher working at another institution or organization, include a letter of approval from that institution’s IRB or agency administrator. If there are multiple researchers, indicate only one person on the Documentation of Review and Approval as the researcher; others should be designated as “Co-Researcher(s)” here.

c. TRAINING: Include the following statement to describe training:

I have completed the Collaborative Institutional Training Initiative (CITI) on line training course prior to HSR approval. The certificate of completion is on file at the SSW and was completed within the past four years.
February 22, 2016

Amanda Sposato

Dear Amanda,

You did a very nice job on your revisions. Your project is now approved by the Human Subjects Review Committee.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Congratulations and our best wishes on your interesting study.

Sincerely,

Elaine Kersten, Ed.D.
Co-Chair, Human Subjects Review Committee

CC: Marianne Yoshioka, Research Advisor
Welcome and Introduction

Thank you for your interest in this survey on musical performance and personal well-being!

Before we get started, please review the following list of statements and check the box next to each statement you agree with:

☐ I am at least 18 years old and no older than 35 years old (i.e. between 18 and 35 years old)
☐ I play a musical instrument or play an instrument and/or sing as part of a group or ensemble or I participate in vocal performances of another type
☐ I have played a musical instrument, taken instrumental or vocal lessons, or rehearsed as part of an ensemble or group for at least one (1) year
☐ I have practiced the musical instrument or vocal performance pieces at least once in the past year
☐ I have performed live publicly at least once in the past year

Informed Consent

2015-2016 Consent to Participate in a Research Study
Smith College School for Social Work • Northampton, MA

Title of Study:

Resolving Dissonance: Music Performance as a Vehicle for Dedifferentiation and Personal Growth in Young Adults

Investigator(s):
Amanda N. Sposato
Smith College School for Social Work
asposato@smith.edu
413.588.7625

Introduction
- You are being asked to be in a research study of the impact of musical performance on feelings of personal well-being in young adults
- You were selected as a possible participant because you are between the ages of 18 and 35, play instrumental music or have performed as a vocalist, have played the instrument you plan to reference or sang for at least one year, and have rehearsed and/or practiced and performed publicly at least once during the last year.
- We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

Purpose of Study
- The purpose of the study is to explore the role of musical performance as a vehicle for personal growth and well-being for emerging and young adults. This study is being conducted as a research requirement for my master’s in social work degree at Smith College School for Social Work.
- Ultimately, this research may be published or presented at professional conferences.

Description of the Study Procedures
- If you agree to be in this study, you will be asked to do the following things:
  - You will be asked to complete an anonymous, online survey.
  - Prior to the survey, there was a brief screening survey to fill out to ensure you met inclusion criteria as well as this informed consent document, of which you will asked to “Accept” or “Decline” prior to starting the survey.
  - This survey will take an average of 15-20 minutes to complete.
This survey will consist of optional demographic questions to help me know more about you and your background followed by four current scales measuring experiences of flow state, self-reported feelings of depression, and conceptualization of personal well-being and flourishing. These four scales will be followed by several open-ended questions requesting narrative responses.

Risks/Discomforts of Being in this Study:
- The study has limited anticipated potential for risk or discomfort.

Benefits of Being in the Study:
- There are no expected personal benefits to participating in this survey other than a potential feeling of enjoyment or fulfillment from reflecting upon your experiences performing music.

- The benefits to social work/society are that your participation will help contribute to the swiftly-growing field of research about musical performance and personal well-being as well as the use of music and other expressive therapies.

Confidentiality
- This study is anonymous. We will not be collecting or retaining any information about your identity other than the optional demographic questions you choose to answer.
Payments/gift
• You will receive no financial compensation, incentives, or gifts for your participation in this research study.

Right to Refuse or Withdraw
• The decision to participate in this study is entirely up to you. You may refuse to take part in the study at any time without affecting your relationship with the researchers of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any survey questions. Once the survey is submitted, however, it cannot be deleted as all responses will be recorded and logged anonymously with no linked identifying information.

By clicking the “ACCEPT” button below, you are acknowledging that you have read and meet all the criteria being asked to participate in this survey and that you consent to any survey responses to be utilized for the purposes of this master’s thesis research.

Clicking “DECLINE” indicates that you do not consent to participate or that you do not meet the inclusion criteria and the survey will end.

ACCEPT
DECLINE

Demographic Questions

The following questions request any demographic information you feel comfortable sharing prior to taking this survey. All questions are optional and responses will remain anonymous.

At the end of this survey, you will be asked two additional demographic questions about which musical instrument or vocal style you reflected upon during this survey.

Which musical instruments do you play and/or what types of vocal performance do you do? Check all that apply.

- Instrumental: Strings (i.e. violin, viola, cello, bass, guitar, harp, etc.)
- Instrumental: Piano, organ, harpsichord
- Instrumental: Percussion (snare drum, drum kit, triangle, timpani, etc.)
- Instrumental: Brass (trumpet, French horn, trombone, etc.)
- Instrumental: Winds (clarinet, bassoon, flute, etc.)
- Instrumental: Other (please indicate instrument or type)
- Vocal: Opera, classical, large ensemble
- Vocal: Jazz
- Vocal: Pop, karaoke
- Vocal: Acapella
- Vocal: Band (please indicate genre)
- Vocal: Other (please indicate type)

Please check the boxes of any identities you wish to disclose:

Check the box containing your current age:

- 18-20
- 21-25
- 26-30
- 31-35
- Prefer Not to Answer

Check the box that best describes how you describe your gender identity:

- Cis-female
- Trans man
- Trans woman
- Cis-male
- Agender
- Omnisexual
- Gender fluid / gender queer
- Other
- Bilgender
- Prefer Not to Answer

Check the boxes to indicate how you identify racially / ethnically:

- Person of Color
- White
- Other
- Prefer Not to Answer

Check the boxes which indicate your primary sexual orientation, preferences, or self-identification:

- I prefer people of the SAME gender
- I prefer people of the OPPOSITE gender
- I prefer people of ANY gender
- I am on the asexual spectrum (asexual, demisexual, romantic only, etc.)
- I prefer MALE-PRESENTING people
- I prefer FEMALE-PRESENTING people
- I identify as "gay" or "homosexual"
- I identify as "straight" or "heterosexual"
- I identify as "bisexual" or "omnisexual" or "pansexual"
- I identify as: 
Check the boxes which best describe your socioeconomic status while growing up:

☐ Growing up, my family was WEALTHY or WELL-OFF or UPPER MIDDLE CLASS
☐ Growing up, my family was MIDDLE CLASS or WORKING CLASS
☐ Growing up, my family was POOR or LOWER MIDDLE CLASS or IN POVERTY
☐ My family’s socioeconomic status changed markedly while I was growing up
☐ Other

Check the box of the highest grade completed as well as any additional educational experiences:

☐ Did not graduate high school or receive a GED
☐ Graduated high school or received GED
☐ Completed some college or received an Associates Degree
☐ Completed a Bachelor’s Degree
☐ Completed a Master’s Degree
☐ Completed a Doctoral Degree (PhD)
☐ Completed a professional degree program (MD, DO, JD)
☐ Completed a professional training program (cosmetology, CNA, HVAC, massage therapy, etc)
☐ Received certifications in specific training affiliated with my field
☐ Studied music performance, music theory or composition, or conducting in college or graduate school
☐ Other

Have you ever received or are you currently receiving psychotherapy, “talk therapy”, or counseling from a licensed professional therapist or counselor?

☐ Yes
☐ No
☐ Prefer Not to Answer

Scales

Below, you will find a series of questions about your most recent musical and/or vocal performance as well as questions about general feelings you may have had over a variety of different times in
your recent past (which do not have to be related to your musical and/or vocal performance). Please read the instructions for each scale before selecting your answers.

Please answer the following questions in relation to your MOST RECENT LIVE MUSIC PERFORMANCE EXPERIENCE (where you were performing). These questions relate to the thoughts and feelings you may have experienced during the performance. There are no right or wrong answers.

Think about how you felt during the performance or event and answer the questions using the scale below (some statements bold for ease of reading only):

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was challenged but I believed my skills would allow me to meet the challenge</td>
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<tr>
<td>I made the correct movements without thinking about trying to do so</td>
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<tr>
<td>I knew clearly what I wanted to do</td>
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<tr>
<td>It was really clear to me that I was doing well</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>My attention was focused entirely on what I was doing</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt in total control of what I was doing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was not concerned with what others may have been thinking of me</td>
<td></td>
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<tr>
<td>Time seemed to alter (either slowed down or sped up)</td>
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<tr>
<td>I really enjoyed the experience</td>
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<tr>
<td>My abilities matched the high challenge of the situation</td>
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</tr>
<tr>
<td>Things just seemed to be happening automatically</td>
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<tr>
<td>I had a strong sense of what I wanted to do</td>
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<tr>
<td>I was aware of how well I was performing</td>
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<td></td>
<td></td>
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<tr>
<td>It was no effort to keep my mind on what was happening</td>
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<tr>
<td>I felt like I could control what I was doing</td>
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<tr>
<td>I was not worried about my performance during the event</td>
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<td></td>
</tr>
<tr>
<td>The way time passed seemed to be different from normal</td>
<td></td>
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<td></td>
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<tr>
<td>I loved the feeling of that performance and want to capture it again</td>
<td></td>
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</tr>
<tr>
<td>I felt I was competent enough to meet the high demands of the situation</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I performed automatically</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I knew what I wanted to achieve</td>
<td></td>
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<tr>
<td>I had a good idea while I was performing about how well I was doing</td>
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<td></td>
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</tr>
<tr>
<td>I had total concentration</td>
<td></td>
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<td></td>
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<tr>
<td>I had a feeling of total control</td>
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</tbody>
</table>
6/24/2016

<table>
<thead>
<tr>
<th>I was not concerned with how I was presenting myself</th>
<th>Qualtrics Survey Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>It felt like time stopped while I was performing</td>
<td>0</td>
</tr>
<tr>
<td>The experience left me feeling great</td>
<td>0</td>
</tr>
<tr>
<td>The challenge and my skills were at an equally high level</td>
<td>0</td>
</tr>
<tr>
<td>I did things spontaneously and automatically without having to think</td>
<td>0</td>
</tr>
<tr>
<td>My goals were clearly defined</td>
<td>0</td>
</tr>
<tr>
<td>I could tell by the way I was performing how well I was doing</td>
<td>0</td>
</tr>
<tr>
<td>I was completely focused on the task at hand</td>
<td>0</td>
</tr>
<tr>
<td>I felt in total control of my body</td>
<td>0</td>
</tr>
<tr>
<td>I was not worried about what others may have been thinking of me</td>
<td>0</td>
</tr>
<tr>
<td>At times, it almost seemed like things were happening in slow motion</td>
<td>0</td>
</tr>
<tr>
<td>I found the experience extremely rewarding</td>
<td>0</td>
</tr>
</tbody>
</table>

When completing this scale, did you rate it based upon an instrumental or vocal performance?

<table>
<thead>
<tr>
<th>Instrumental</th>
<th>Vocal</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

How long have you been playing the instrument or performing in the vocal style you indicated above?

<table>
<thead>
<tr>
<th>1 - 2 years</th>
<th>3 - 4 years</th>
<th>5 - 10 years</th>
<th>10 - 20 years</th>
<th>20+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Thank you.

Below are eight (8) statements about how you may feel about yourself with which you may agree or disagree. Using the scale below, indicate your agreement with each item by indicating that response for each statement.

<table>
<thead>
<tr>
<th>I lead a purposeful and meaningful life</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My social relationships are supportive and rewarding</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I am engaged and interested in my daily activities</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I actively contribute to the happiness and well-being</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Thank you. You are half way done!

For this next set of questions, please think about what you have been doing and experiencing during the past FOUR (4) WEEKS. Then, report how much you have experienced each of the following feelings / descriptors, using the scale below:

<table>
<thead>
<tr>
<th>Positive</th>
<th>Very Rarely / Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often / Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unpleasant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afraid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joyful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contented</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you.

These next questions ask how you are feeling recently. For each item, please indicate how well it describes you during the PAST WEEK, INCLUDING TODAY. Check the box next to the item that best describes how frequently the following statements have been true.

During the past week, including today...

<table>
<thead>
<tr>
<th>I felt sad or depressed</th>
<th>Not At All True (0 days)</th>
<th>Rarely True (1-2 days)</th>
<th>Sometimes True (3-4 days)</th>
<th>Often True (5-6 days)</th>
<th>Almost Always True (every day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was not as interested in my usual activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6/24/2016

| My appetite was poor and I didn’t feel like eating | 0 | 0 | 0 | 0 | 0 |
| My appetite was much greater than usual | 0 | 0 | 0 | 0 | 0 |
| I had difficulty sleeping | 0 | 0 | 0 | 0 | 0 |
| I was sleeping too much | 0 | 0 | 0 | 0 | 0 |
| I felt very fidgety, making it difficult to sit still | 0 | 0 | 0 | 0 | 0 |
| I felt physically slowed down, like my body was stuck in mud | 0 | 0 | 0 | 0 | 0 |
| My energy level was low | 0 | 0 | 0 | 0 | 0 |
| I felt guilty | 0 | 0 | 0 | 0 | 0 |
| I thought I was a failure | 0 | 0 | 0 | 0 | 0 |
| I had problems concentrating | 0 | 0 | 0 | 0 | 0 |
| I had more difficulty making decisions than usual | 0 | 0 | 0 | 0 | 0 |
| I wished I was dead | 0 | 0 | 0 | 0 | 0 |
| I thought about killing myself | 0 | 0 | 0 | 0 | 0 |
| I thought that the future looked hopeless | 0 | 0 | 0 | 0 | 0 |

Qualtrics Survey Software

The next two questions continue to ask you to think about how you’ve been feeling recently, IN THE PAST WEEK, INCLUDING TODAY.

Overall, how much have any of the last scale of thoughts or feelings interfered with or caused difficulties in your life?

<table>
<thead>
<tr>
<th>Extremely</th>
<th>Quite a bit</th>
<th>A moderate amount</th>
<th>A little bit</th>
<th>None at all</th>
</tr>
</thead>
</table>

How would you rate your overall quality of life during the past week?

- Very Good: My life could hardly be better
- Pretty Good: Most things are going well
- The good and bad parts are about equal
- Pretty Bad: Most things are going poorly
- Very Bad: My life could hardly be worse

Qualitative Questions
You are almost done!

These next questions ask you about your feelings about aspects of musical performance. Please be as detailed as you can.

What appeals most to you about performing live music?

Do you prefer to perform solo or with others?

What do you prefer about performing solo or with others?

What about performing solo or with others impacts you emotionally?

Describe a time when you positively “lost yourself” in the music and the feeling of losing yourself in
the performance.

In what ways does the feeling of being positively lost in the music or performance impact your relationship with others or yourself? Please describe.

Please use this space if there is anything else related to instrumental or vocal performance and personal well-being that you wish to share:

Thank you (for completion)

You have now reached the end of this survey!

I appreciate you taking the time to complete this survey. Your responses will be helpful in continuing to understand the benefits of musical performance on personal well-being.