Chapter 33

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Musical identity in fostering emotional health

Abstract

This chapter introduces promotion of emotional health as a relevant constituent of musical identity. The chapter contains discussion about the importance of emotions as a key constituent of health and wellbeing referring to the abilities of emotion recognition and emotion regulation and the significance of inducing positive emotions. Music is introduced as a behaviour that has the capacity to effectively promote these core aspects of emotional health and wellbeing and it is argued that these emotion-related capabilities serve as essential routes through which music relates to health. It is proposed that a musical identity that fosters emotional health contains self-reflective awareness of the emotions expressed, evoked, and regulated through music and a sense of self-control and agency regarding one's emotional engagement in music for pleasure, self-expression, coping, and growing emotional intelligence.

Keywords: music, emotion regulation, emotion perception, positive emotions, emotional intelligence

The relevance of emotions to musical identity

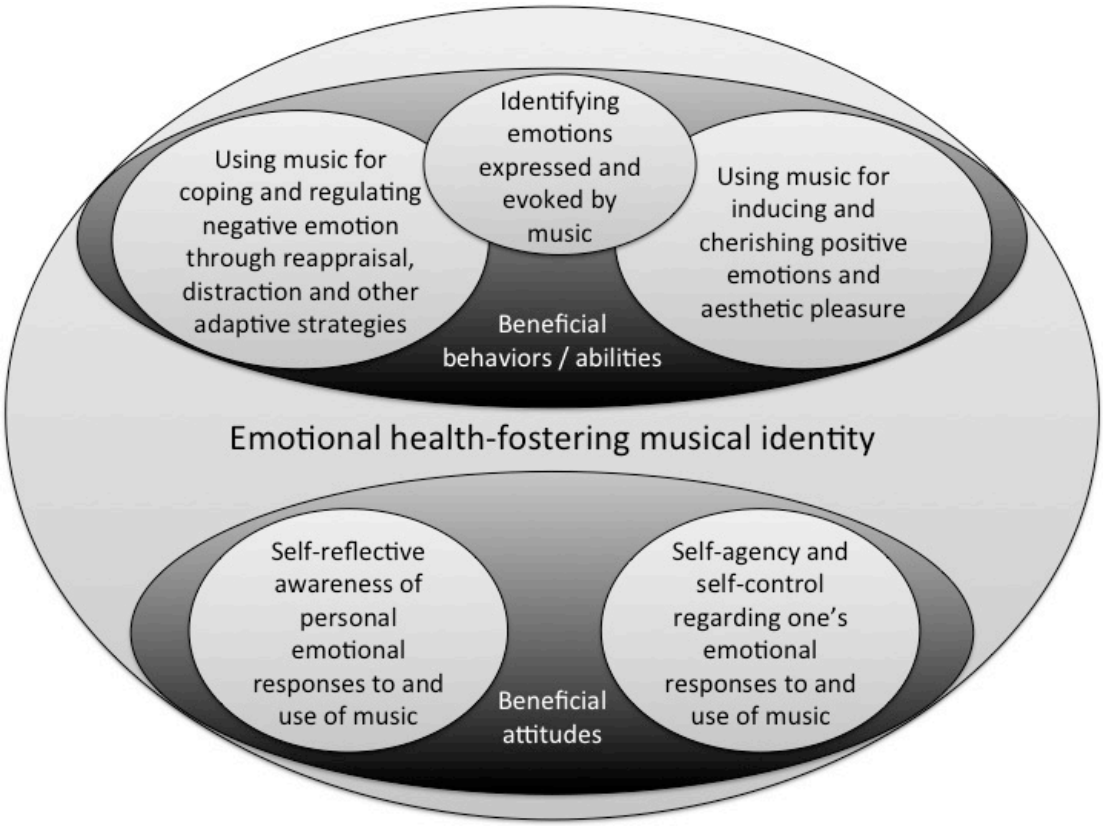
Emotions are among the most important aspects of human behavior promoting adaptive self-regulation, communication, and social behavior (e.g. Fridja, 1988; Damasio, 1995). Emotion-related competencies such as the ability to recognize and regulate emotions are known to be crucial for both intrapersonal and interpersonal health (e.g. Gross, 1999; Salovey, Bedell, Detweiler, & Mayer, 2000)

and the concept of perceived emotional intelligence correlates with features like adaptive coping, perceptions of stressors as less threatening, lower levels of depression and symptom reporting, and better interpersonal functioning (Salovey, Stroud, Woolery, & Epel, 2002). Emotions and emotional experiences are also at the core of musical experience, and, over the last decade, the topic of emotion has rocketed into the forefront of music research, already resulting in a handbook on the subject (Juslin & Sloboda, 2010). The realization of the emotional aspect being instrumental to the connection of music to health is by far not a new one: for instance, the idea of using music to advance emotional processing has been a core feature of various models of music therapy from its beginning (e.g. Trondalen & Bonde, 2012). However, recent years have further witnessed a vast growth of interest in the relevance of musical emotions to health and wellbeing also in the context of everyday life (e.g., McDonald, Kreutz, & Mitchell., 2012; Västfjäll, Julsin, & Hartig, 2012). New evidence regarding the health-relevance of musical emotions is actively emerging from both self-report studies (e.g. Miranda, Gaudreau, Debrosse, Morizot, Kirmayer, 2012) and physiological measures (e.g. Koelsch & Stegemann, 2012; Kreutz, Quiroga Murcia & Bongard, 2012) showing, for instance, that music-evoked emotions involve the very core of evolutionarily adaptive neuroaffective mechanisms (Koelsch, 2005).

Emotions and emotional health thus appear as concepts of utter importance for comprehensive understanding of musical behavior, including the concept of musical identity. Therefore, this chapter presents a framework for comprehending and investigating musical identity from the perspective of emotional health. Essential parts of recent knowledge on music, emotions, and mental health is compiled in order to present a set of psychological mechanisms of human emotional functioning that can be seen as the underlying routes for how and why emotions in particular play such a major role in connecting music to health both in daily life and in rehabilitation. The chapter raises a question of what kind of musical identity is supportive of emotional health, and suggests a set of features as its essential constituents. These features consist of emotion-related abilities of emotion recognition, emotion regulation, and positive emotion induction as well as of attitudes related to self-reflectiveness and self-

control and agency. These key constituents of a musical identity that fosters emotional health are summarized in Figure 1, and will be discussed in detail in the following pages.

Figure 1. Components of a musical identity that fosters emotional health



Emotion recognition

Among the most fundamental aspects of healthy emotional behavior is the ability to perceive and recognize emotional states in self and in others, a competence that is defined by concepts such as emotion labeling (Swinkels & Giuliano, 1995) or emotional clarity (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). A differentiation is made between the mere tendency to monitor emotions, which is related to negative outcomes, and the ability to identify and label emotions, which is related to positive outcomes (Swinkels & Giuliano, 1995), including

empathy and prosocial behavior, adaptive coping strategies (Gohm, 2003), experience of positive emotions, high self-esteem, and greater satisfaction with social support (Swinkels & Giuliano, 1995), as well as lowered depression, social anxiety, physical symptom reporting, and cortisol release during repeated stress episodes (Salovey, Stroud, Woolery, Epel, 2002). Furthermore, it can be said that the more complex or higher order emotional skills, such as regulating emotions or using emotions in thought and behavior, are rooted in the basic skills of emotion perception and recognition (Salovey et al., 1999).

Emotion recognition in music

Music undoubtedly is a form of conveying emotions, and a number of scholars have discussed music as a manifestation of emotional communication between individuals (Clayton, Sager & Will, 2004; Cross, 2008; Dissanayake, 2008). Indeed, people are highly capable in identifying at least the so-called 'basic' emotions, not only through specific facial expressions (Ekman, 1982; Ekman & Friesen, 1971), vocal characteristics (Scherer, 1986), or body movement (Coulson, 2004; Wallbott, 1998), but also in musical expression (Gabrielsson & Lindström, 2001; Juslin & Laukka, 2003; 2004; Juslin & Timmers, 2010). The ability to perceive emotion in music begins to develop early, with infants already showing a preference for happy over sad expression (at 5-7 months of age) (Nawrot, 2003), and children as young as four correctly identifying happiness, sadness, anger and fear in music (Dolgin & Adelson, 1990; Cunningham & Sterling, 1988). The general agreement between individuals regarding the connection between various musical features and perceived emotions is shown to be high (Juslin, 1997; Juslin & Laukka, 2004; Juslin & Timmers, 2010; Vieillard, Peretz, Gosselin, Khalfa, Gagnon, & Bouchard, 2008), but it has also been proposed that the ability to recognize musical emotions depends on factors such as musical expertise, personality, and emotional intelligence (Dibben, Coutinho, Vilar, & Estévez-Pérez, submitted).

Connections of musical emotion recognition to broader emotional health

Only a handful of studies have so far investigated whether the ability to recognize emotions in music correlates with general emotional abilities.

Resnicow, Salovey and Repp (2004) reported that better identification of musicians' intended expression of emotion (in three pieces of classical music by Bach, Bartok, & Perichetti) correlated with the emotional intelligence scores on the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). Significant correlations were found for the overall score of the MSCEIT and two of its sub-scales: Using Emotions to Facilitate Thought, the general ability to generate a mood in the service of cognitive tasks, and Perceiving Emotions, the ability to recognize emotional information in faces and pictures. Emotion recognition ability in musical expression has also been shown to correlate with empathy (Saarikallio, Vuoskoski, & Luck, 2012; Wöllner, 2012). Wöllner (2012) reported that the accuracy of recognizing the intended emotion of music played by a string quartet correlated with participants' scores on the affective and overall empathy, not on the cognitive empathy (measured by the Questionnaire of Cognitive and Affective Empathy, QCAE; Reniers, Corcoran, Drake, Shryane, & Völlm, 2011). Meanwhile, Saarikallio and colleagues (2012), who used the Interpersonal Reactivity Index (IRI; Davis, 1980; 1983) for measuring empathy, reported that congruency of recognizing a particular intended emotion (tenderness) in music correlated with the cognitive component of empathy (Perspective Taking), while the affective component of empathy (Empathic Concern) correlated with a general bias for perceiving greater amounts of certain emotions (hope and fear) in the music.

Another line of studies has indeed particularly investigated the biases of music-related emotion perception as indicators of general emotional states or traits. For instance, negative mood (Vuoskoski & Eerola, 2011a) and clinical depression (Punkanen, Eerola, & Erkkilä, 2011) have been shown to correlate with a bias for perceiving higher amounts of negative, and lower amount of positive, emotion in music. Similar biases have also been found in relation to personality: Extraversion, Openness, and Agreeableness all correlate with higher ratings of perceived positive, and lower ratings of perceived negative, emotions in music, while Neuroticism relates to an opposite pattern (Liljeström, 2011; Vuoskoski & Eerola, 2011a). Furthermore, more intense emotional responses to music correlate with agreeableness (Ladinig & Schellenberg, 2012; Dibben et.al.,

submitted), empathy (Vuoskoski & Eerola, 2012), and low emotional stability (Dibben et.al, submitted). The biases in musical emotion perception appear trait-congruent, which gives rise to the idea of utilizing musical behavior in developing diagnostic measures for various emotion-related conditions.

Furthermore, the possibility for a transfer-effect of emotional abilities between musical and non-musical domains is preliminarily supported by recent evidence showing that emotional intelligence increases with years of musical training (Petrides, Niven & Mouskounti, 2006) and that musically trained adults outperform musically untrained adults in recognizing various emotions in spoken sentences (Thompson, Schellenberg, & Husain 2004). While other studies in this field have been correlational, Thompson and colleagues (2004) also conducted an intervention study with children, and found that 6-year-olds who received one year of musical training were better in identifying the difficult emotional expressions (anger and fear) in speech prosody than their peers in the control group (no training).

How does emotion recognition connect musical identity to emotional health?

Evidence on the connections between the musical emotion recognition abilities and general emotional abilities is beginning to emerge. Nonetheless, the studies are few and they differ in their samples and types of stimuli, measures and procedures. Far more work is therefore needed for elaborate conclusions regarding these connections. The need for controlling relevant confounding factors such as general intelligence has also been stressed (Schellenberg & Mankarious, 2012). Moreover, to provide future research solid grounds it is important to discuss the theoretical propositions regarding the underlying psychological mechanisms that make emotion perception an important link between music and health. Firstly, the obvious theoretical proposition is that the abilities of recognizing emotions in music may generalize to recognizing emotions also in self and in others. In addition, however, it would also be important to pay attention to a possible "mid-phase" of this transfer-process, that is, the emotion labeling ability or emotional clarity regarding the emotions

experienced to music. It has been established that the emotions perceived in music should theoretically be distinguished from emotions evoked by music (Gabrielsson, 2002). Thus, researchers dealing with the emotional competencies in music should also differentiate between these. The recognition of emotion expressed by music is an ability that essentially relates to emotional communication, resembling identification of emotional expression of other humans in their facial, postural, and vocal behavior, and may therefore mostly relate to competencies of emotional communication and interpersonal behavior. Meanwhile, emotion recognition regarding the emotions that music induces in self basically refers to identifying a true emotional reaction in oneself, and is therefore closer to the emotion recognition of everyday emotions in self. Indeed, while music-induced emotions might somewhat differ from everyday 'utilitarian' emotions (Zentner & Scherer, 2008), emotional clarity regarding the felt emotions to music presents itself as a possibly highly relevant aspect particularly regarding the intrapsychic, self-reflective, and self-regulatory aspects of emotional health.

As regards the specific nature of emotion recognition in music, we can turn to Even Ruud's (1997) proposition about music being able to increase 'awareness of feelings', i.e. the ability to experience various emotional nuances, express various degrees of intensity of emotions, and maintain precise concepts about feelings. This description also resembles what Nico Fridja and Louise Sundararajan (2007) write about refined emotions, emotional states that commonly occur both in daily life and in relation to aesthetic experiences, characterized by detachment, restraint, reflective awareness and elaboration of appraisal of the eliciting events. It could thus be argued that music-related emotion recognition holds potential for promoting emotional health particularly due to increased capability for self-reflective awareness regarding various emotional nuances – whether in musical expression, in aesthetic experiences evoked by music, or everyday emotional experiences. This self-reflective experience and understanding of emotion is also not far from the concepts of absorption and dissociation. Garrido and Schubert (2010; 2011) provide a literature review regarding these concepts and related individual differences,

and note, for instance, that the ability to appropriately dissociate oneself from the affective content may partly explain the enjoyment of sad music. Finally, while music therapy work is beyond the scope of this chapter, it is relevant to note that the ability to use music as a symbolic (dissociated enough from self) reflection of personal emotional experiences also serves as the very basis for much of music therapy work related to emotional dysfunctions.

Taken together, we can posit that one of the essential areas of emotional health possibly promoted by musical behavior is the increased, or refined, ability of emotion perception and recognition, and a musical identity that would foster emotional health consists of an open and self-reflective stance towards the emotional nuances of music. Also, the connections and transfer-effects between the recognition of musically expressed, music-evoked, and everyday emotions and the role of individual differences regarding these connections appear as an important area for related research. Since the current base of empirical evidence basically consists of few correlational studies, far more research is needed to confirm whether everyday musical behavior truly leads to improved emotion recognition in music and in general and what are the optimal circumstances for this to happen.

Regulation of negative emotion

The ability to successfully regulate emotions is a vital aspect of health that relates to the modification of the occurrence, duration, and intensity of affective states at the levels of subjective feelings, physiological reactions, and behavioral expressions (e.g., Gross, 1998; Larsen, 2000). This sub-chapter particularly focuses on the regulation of negative affect, while the induction of positive emotion is discussed in the next. Negative affect regulation closely relates to the concept of coping, with the main distinction of emotion regulation focusing on changes in the affective states per se while coping intrinsically also concerning the stressors and ways of managing them (e.g., Gross, 1998; Larsen, 2000). Current literature on coping (e.g. Skinner, Edge, Altman, & Sherwood, 2003) recognizes the distinction between dealing with a stressor and dealing with the elicited emotion (problem- vs. emotion-focused coping), but many coping

approaches (approach vs. avoidance, cognitive vs. behavioral) also fluently apply to emotion regulation, i.e. to how the emotion elicited is dealt with. The literature on coping and negative emotion regulation thus overlaps, with some scholars indeed considering coping primarily as a response to the negative emotions elicited by stressful life events (Salovey, Bedell, Detweiler, Mayer, 1999).

Whether one wants to discuss coping or emotion regulation, the ability to successfully cope with stressors and related negative emotions is a key aspect of health and wellbeing (Aldwin, 2007; Antonovsky, 1979; Collins, et al., 2003). Stress is an imbalance between demands and resources (Steptoe, 1997), and evokes a defense-arousal reaction characterized by emotions of fear and tension, increased levels of cortisol secretion, blood pressure, heart rate, and decreased heart rate variability (Berntson & Cacioppo, 2004; Lovallo, 2005; Pelletier, 2004). Short-term responses to stress support adaptation, but prolonged stress is detrimental to health (Brannon & Feist, 2010; Berntson & Cacioppo, 2004). Moreover, many disorders such as depression or hypertension centrally involve emotion dysregulation (e.g. Gross, 1999).

Music as regulation of negative emotion

People actively engage in music in daily life to manage their negative emotion (e.g. Thayer, Newman & McClain, 1994; Saarikallio & Erkkilä, 2007; VanGoethem & Sloboda, 2011), and the power of music to influence emotions is demonstrated by both self-reports and physiology (Blood & Zatorre, 2001; Nater, Abbruzzese, Krebs, & Ehlert, 2006). Mounting psychological and physiological evidence exists about the efficacy of music in pain management (Bernatzky et al., 2012; Mitchell et.al., 2007; Mitchell et.al., 2012) and stress reduction (Pelletier, 2004; Västfjäll, Juslin, & Hartig, 2012), showing, for example, that music listening relates to having no or less need for medical treatment for chronic pain (Mitchell, et.a., 2007) and that musical behavior relates to lowered levels of cortisol (Flaten, et.al., 2006; Hanser, 2010; Khalfa, et.al., 2003; Koelsch, et.al., 2011 Lindblad, Hogmark, & Theorell, 2007). However, a range of studies also shows connections between musical behavior and various externalizing (disruptive) and internalizing (distress) symptoms (for review, see Miranda, et.al, 2012). Current

literature thus presents a somewhat inconsistent picture on whether music-related emotion regulation is adaptive and health-beneficial. McFerran, Garrido, and Saarikallio (2013) point out that participants themselves rarely describe negative consequences of their personal music use, while several correlational studies do indicate a relationship between music listening and ill-health, indicated by a range of psychosocial measures. Current evidence on the link between music and ill-health is almost solely correlational leaving it open whether it only is about the fact that music is actively called for in times of trouble, or whether it also is about music not functioning as effectively in emotion regulation as one would hope for. For instance, Thoma Scholz, Ehlert and Nater (2012) found that musical emotion regulation (listening to music for reducing loneliness and aggression and arousing and intensifying specific emotions) was related to lower psychological and physiological functioning – but it may well be that patterns of musical behavior were indicators rather than causes of loneliness, aggression, and lowered psychological functioning.

The relevance of choosing a regulatory strategy

Part of the answer lies in looking at the musical emotion regulation from the more detailed perspective of specific emotion regulation strategies. General coping and emotion regulation literature has shown that efficacious emotion regulation strategies, such as distraction and positive reappraisal, buffer against stressors (Seiffge-Krenke, 1995) and relate negatively to undesirable outcomes such as depression (Catanzaro, 2000; Garnefski Teerds, Kraaij, Legerstee, & Van den Kommer 2004; Gross & John, 2003; Oikawa, 2002), whereas inefficient emotion regulation strategies such as venting, suppression and rumination relate to various negative outcomes such as depression (Galaif, Sussman, Chou, & Wills, 2002; Garnefski et.al., 2004; Gross & John, 2003; Salovey et.al, 1999) or use of alcohol, cigarettes and marijuana (McCubbin Needle, & Wilson, 1985). Meanwhile, music researchers have begun to emphasize that music is not a single form of emotion regulation but a tool or means for realizing a range of emotion regulation strategies (e.g., tension reduction, distraction, mental processing, or emotional release; Saarikallio & Erkkilä, 2007; Van Goethem & Sloboda, 2011) and coping strategies (e.g. problem-oriented, emotion-oriented,

avoidant strategies; Miranda & Claes, 2009). It has been proposed, that the overall effect of music on psychopathology and health intrinsically depends on the type of musical behavior: adaptive patterns of musical behavior foster health and buffer against stressors while maladaptive patterns of musical behavior increase negative symptoms (Miranda et al., 2012). Thus, the efficacy and adaptiveness of musical coping or emotion regulation depends on the particular strategy employed. Indeed, preliminary evidence indicates that it is not the amount of music listening or even the personal relevance of music, but particularly the emotion-regulatory motivations for listening that seem to relate to psychological and physiological functioning (Thoma et.al., 2012), and that certain musical emotion regulation strategies indeed are more effective than others in terms of dealing with sadness (Van den Toll & Edwards, 2011) and combatting depression (Miranda & Claes, 2009).

Nature of heath-beneficial musical emotion regulation

Based on the evidence so far, the two music-related strategies that appear particularly beneficial regarding health are distraction and reappraisal. Both of these strategies are considered to be among the most advanced and effective ways of emotion regulation also in general emotion regulation literature: distraction refers to the use of pleasant activities to lighten moods (Salovey et al., 1999) and reappraisal refers to cognitive reinterpretation of the emotion-eliciting situation (Gross & John, 2003), and a strong body of research connects these strategies to positive psychological and physiological outcomes (Gross & John, 2003; Salovey et al., 1999). As regards music, it has been proposed that pleasant musical activities help to distance thoughts and feelings from personal burdens (distraction) and that music promotes mental reflection and regaining control over psychic processes (reappraisal) (e.g., Behne, 1997; Sloboda, 1992; Saarikallio & Erkkilä, 2007; Van Den Toll & Edwards, 2011). Furthermore, Chin and Rickard (2013a, 2013b, submitted) showed that engagement in music for cognitive and emotion regulation relates positively to well-being, negatively to depression, and functions efficiently in stress reduction particularly in individuals who are high in habitual cognitive reappraisal. Similarly, Van den Toll and Edwards (2014) found that when people listen to sad music while feeling

sad they succeed in mood improvement particularly if the music simultaneously functions as a means for distraction and cognitive reappraisal. Mitchell and colleagues (2007) also showed that the success of music in pain management particularly relates to experiences of distraction and relaxation. The effectiveness of reappraisal and distraction may be based on their in-built capacity for mood repair – alteration of negative mood towards a positive one. It has been proposed that the regulation of negative moods generally divides into a tendency to focus on the negative emotion itself and a tendency to focus on something else, either some completely emotion-irrelevant material (as in distraction) or some positive aspects of the negative situation (as in reappraisal) (Rusting & DeHart, 2000). The relevance of using music for altering the experience towards positive emotion is further supported by results indicating that musical emotion regulation is effective without the presence of distraction or reappraisal if some other mechanism or behavior such as aesthetic pleasure (Van Den Toll & Edwards, 2014) or dancing (Chin & Rickard, 2013b) leads to the positive emotional experience. In line with that, people also seem to like sad music particularly when they experience happiness due to it (Weth & Kickinger, 2013).

Nature of maladaptive musical emotion regulation

Evidence of possibly maladaptive music-related emotion regulation strategies also begins to emerge, and the most relevant candidates for such strategies include rumination, avoidant coping, and aggression ventilation. Rumination refers to repetitive and passive focus on negative emotions and other symptoms of distress (Joorman, 2005; Nolen-Hoeksma et al. 2008), strongly relates to depression (Garnefski et al., 2004 Nolen-Hoeksma, 1991), and is also employed in relation to music listening (Greenwood & Long, 2009; Garrido, 2009). Miranda and Claes (2009) reported that recurrent avoidant/disengagement coping and emotion-oriented coping by music listening – strategies that can be considered reflective of ruminative tendencies – were related to higher depression. The key maladaptive feature of rumination includes overt focus on negative emotion instead of addressing the stressor or trying to improve mood. Interestingly, Garrido and Schubert (in press) reported that individuals with high ruminative

tendencies particularly benefitted from listening to happy music: their mood improved significantly more than other listeners – an atypical positive twist, listening to happy music, might thus be particularly beneficial to individuals who habitually ruminate.

Trapnell and Campbell (1999) further distinguish between the maladaptive type of rumination and an adaptive form of self-reflection they call reflectiveness. While both reappraisal and rumination involve self-reflection, the focus of mental processing essentially differs: rumination refers to passive, repetitive, and negative thoughts while reappraisal refers to finding new optimistic viewpoints or even solutions. Salovey and colleagues (1999, 2000) point out that ruminative people are constantly monitoring their feelings and get confused in their attempt to make sense of them, while the ability to identify and understand one's emotions would actually prevent rumination. This notion is not far from the concepts of emotional clarity, emotion labeling, awareness of feelings, and refined emotion discussed in the previous chapter – pointing to the relevance of the type of the self-reflective attention to emotion. That is, it may not necessarily be maladaptive to focus on or even intensify the current negative emotional state as long as the involvement involves reflectiveness instead of rumination, solution orientation instead of getting stuck in repetition, and focus on positive instead of negative aspects. Indeed, Miranda et al. (2012) note that shared engagement in listening to sad music with friends holds potential for encouraging both maladaptive co-rumination and adaptive experiences of increased social support and healthy socialization. Research conducted with healthy populations tends to emphasize the positive outcomes of listening to music that reflects one's negative mood, including notions about music being a valued friend (e.g. Sloboda, 1992), a means for solace (Saarikallio & Erkkilä, 2007) a form of emotional validation (Schwartz & Fouts, 2003), and a means for gaining increased insight of the affective state (Skånland, 2013). Instead, recent work with depressed individuals shows that instead of using music for successful processing of experiences these individuals are more inclined to use music to support repetitive thinking and rumination, actually leading to

worsening of their social isolation and negative mood (Garrido & Schubert, in press; McFerran & Saarikallio, 2013).

The regulatory strategy of venting and releasing negative emotion may hold similar two-fold potential. In general, it has been proposed that emotional disclosure helps to restructure thoughts and feelings supporting adaptive functioning (Salovey et al., 1999, 2000), but anger ventilation is also shown to correlate with health risk behaviors and depression (Galaif et al., 2003; McCubbin et al., 1985). It has been proposed that music serves as a harmless form of discharging ager and helps in cathartic release of negative emotions (Sloboda, 1992; Saarikallio & Erkkilä, 2007; Swartz & Fouts, 2003). However, a strong body of research also connects music listening, particularly the tendency for listening to 'aggressive' and 'rebellious' styles of music to a range of negative outcomes and behavioral problems (North & Hargreaves, 2012; Mulder et.al., 2007). Furthermore, recent evidence shows that discharging negative emotions through music is actually negatively or not at all correlated with adaptive strategies of general emotion regulation such as mood repair, negative mood regulation, and cognitive reappraisal (Saarikallio, 2008).

Coping and emotion regulation as a part of musical identity

The personal ways of using music for coping and emotion regulation are an indisputable part of one's musical identity. These behavioral patterns further play a major role regarding one's emotional health. Emerging evidence points to favoring the use music for self-reflective, reappraising and distractive forms of dealing with negative emotion, but various individual differences and causalities related to these connections are far from clear. Furthermore while investigation of the emotion regulation strategies presents itself as an essential aspect of understanding the health-consequences of musical emotion regulation, other factors, such as the type of the stressor, are also likely to play a significant role. Indeed, music has been shown to be effective in stress regulation only during periods with generally low stress, while periods of more severe stress may require other regulatory behaviors (Linnemann, Ditzen, Strahler, Dörr & Nater, 2013). Individual features related to personality and general emotionality are

also likely to play a role. For instance, people high in empathy seem to generally be more susceptible for musical emotion induction (Vuoskoski –& Eerola, 2011b) and features such as stress reactivity (Thoma et al. 2012) and tendencies for absorption and dissociation (Garrido & Schubert, 2011; 2013) seem to moderate the connection between musical emotion regulation and health-outcomes. The greatly needed intervention research on the topic is also only beginning to emerge (Dingle & Fay, 2013; Van Goethem, 2010). Therefore, it must be concluded that we are only beginning to explore the complexity of this topic.

Induction of positive emotion

Positive emotions are fundamental for both psychological and physical aspects of wellbeing, having important consequences over and above negative emotions (Gable, Reis, Impett, & Asher, 2004). Positive emotions facilitate cognitive processing (Ashby, Isen, & Turken, 1999), broaden thought-action repertoires (Fredrickson, 2001), regulate and mitigate negative feelings and their ill-effects on self-control (Izard, 2002), and relate to decreased cortisol levels (Kemeny & Shestyuk, 2010). Indeed, the mere experience of positive instead of negative mood is related to improved coping and wellbeing (Fredrickson, 2000; Gohm, 2003; Pinto Kreipe, & McCoy, 1997). Fredrickson (2001) has postulated that positive emotions do not only signal flourishing, but significantly produce it: they facilitate approach behavior, widen the array of thoughts and actions in momentary behavior, and facilitate coping and management of negative emotions, further fostering the development of enduring personal resources and increased resilience. Positive emotions are thus not significant just as end states in themselves but also as a means for achieving psychological growth and wellbeing over time.

Music-induced positive emotion

As regards music, the relevance of positive emotion is blatant. Enjoyment, mood improvement and positive emotional experiences are central motivations for music listening (e.g., Roe, 1985; North, Hargreaves & Hargreaves, 2004), and

hedonic motivation also dominates among performance motivations (Persson, 2001). As regards emotion-regulation, mood improvement is one of its most central goals (Saarikallio & Erkkilä, 2007), and the most typical regulatory strategies essentially involve positive emotion (entertainment, strong sensation, revival reported by Saarikallio, 2008; relaxation reported by Van Goethem & Sloboda, 2011). Furthermore, people do not only actively engage in music for the positive emotional experiences, but this endeavor also appears successful: positive emotions equally dominate in people's responses to music (Juslin & Zentner, 2002; Juslin & Laukka, 2004; Juslin Liljeström, Västfjäll, Barradas, & Silva, 2008). Indeed, while Van Goethem and Sloboda (2011) listed calm/relaxed and happy/excited as the most typical emotions that music listening was used to create, the very same emotions also appear as the most typical felt emotional responses to music in daily life (e.g. happy, relaxed, and calm – the three most common emotions, reported by Juslin & Laukka, 2004; calm/contentment and happiness/elation – the most common emotions reported by Juslin, et.al, 2008). A variety of research has also evidenced the effect of music listening on physiological indicators of positive emotions, including activation of brain areas involved in reward (Blood & Zatorre, 2001; Evers & Suhr, 2000; Menon & Levitin, 2005) and frontal asymmetry of the alpha band power indicative of positive affect (Altenmueller et al 2002; Field et al 1998; Schmidt & Trainor 2001). Finally, while the most common emotional responses to music can be rounded to overall positive affect with varying levels of arousal, the more detailed nuances of the emotional experiences and affective rewards derived from music may somewhat differ from the everyday positive emotions, particularly in including a relatively high amount of the so called aesthetic emotions (Zentner & Scherer, 2008) such as experiences of beauty (Istók, Brattico, Jacobsen, Krohn, Müller, & Tervaniemi, 2009).

How do positive emotions connect music to health?

While it has been thoroughly demonstrated that music can induce a range of positive emotions both in laboratory contexts and in everyday life, there is little research on how these positive music-related emotional experiences relate to health and wellbeing. It could naturally be argued that since the relevance of

positive emotion to health and well-being is already shown in general emotion research there is no point in repeating these findings within music and emotion research. However, elaborate investigations would enlighten the role and specific applicability of music in health-promotion contexts. Also, the distinct nature of music as a form of aesthetic enjoyment is likely to enable music to afford somewhat different emotional gratifications than the every day utilitarian positive emotions. Some of the recent findings on the topic should be mentioned. For instance, it has been shown that it actually is the positive emotions experienced to music that mediate the relationship between music and perceived stress (Helsing, 2012). Also, preliminary evidence indicates that the lowered experience (Rickard, Arjmand, & White, 2013), perception, and regulation (Saarikallio, Luck, Punkanen, 2013) of positive emotion, not increased negative emotion, is the dominant deficit of emotional processing of music observed in depressed individuals in comparison to healthy controls. These findings point to the health-relevance of fostering the induction of positive, instead of only dampening the negative, emotion through musical engagement. Another line of findings indicates that the positive mood induced by music also is an intrinsic component in the effects of music on improved cognitive abilities both in laboratory settings (Thomson et al. 2001) and in rehabilitation (Särkämö et al.. 2008), which is perfectly in line with the findings of general emotion research on the effect of positive emotion on cognition (e.g., Ashby et al., 1999).

The relevance of positive emotions to musical identity

The induction of positive emotion instead of managing negative emotion was long neglected in general emotion regulation, coping and health literature and became popular only after the rise of positive psychology and preventive medicine. As regards music, the role of positive emotions as a key feature between music and mental health cannot be emphasized enough, and similar neglect is simply not acceptable. Music intrinsically is a form of art and entertainment, a medium of pleasure, joy, enjoyment and happiness, and the research on the connections between music and emotional health should embrace this happiness-advancing quality as its core subject. Previous work has indeed proposed that pleasures of musical experiences may produce a sense of

wellbeing, stability, wholeness, and purpose in life (Larson, 1995; Ruud, 1997), and future work should engage in elaborate explication of how the variety of positive emotional experiences of music relate to health. This is particularly important for understanding how a musical identity might foster emotional health in the context of everyday life. Some relevant aspects for future research might, for instance, include investigation of the particular nature of the musical versus non-musical positive emotional experiences, the self-reflective awareness and emotion recognition ability regarding these positive experiences, the tendency for absorption regarding the positive musical emotions, and the role that these positive experiences play in buffering stressors and mitigating the effects of negative emotions. Answers to these questions would elaborate our understanding about whether and why the use of music for inducing positive emotional experiences should be considered a major feature of musical identity.

Conclusions

What kind of musical identity is supportive of emotional health? This chapter has brought forward some features of emotion perception, regulation, and induction that are likely to be relevant for the construction of such identity. The exploration began with discussion of the ability of recognizing emotions that music expresses and also evokes. Not only may this ability transfer to general abilities of identifying emotions in self and in others, but it may also be the fundamental prerequisite for the adaptive use of music for emotion regulation and induction. In particular, while music abundantly – and negligently – affords intensification and enhancement of various emotional states, the health-implications of utilizing this power may vary, and the ability for self-reflective and dissociative stance – supported by emotion recognition capabilities – may hold a key for differentiating between health-beneficial and health-endangering emotional uses of music. This is particularly relevant for the negative, depressive, and aggressive moods that may endanger emotional health if passively prolonged and repeated, with no clarification, release, solution-orientation, active processing, and change towards the positive. However, the self-reflective, absorptive, emotion-identifying awareness may also be highly

advantageous in relation to positive emotions, as it may foster experiences of refined and thorough enjoyment – savoring – of various beautiful shades and nuances imbedded in the positive emotional experiences, possibly allowing highly rewarding, enriching, and thought-broadening experiences that may be essential for the building of enduring resources for resilience, emotional stability, enjoyment, and satisfaction with life.

Moreover, the relevance of the self-reflective awareness may further extend to the meta-cognitive level regarding one's overall emotional engagement in music. McFerran and Saarikallio (2013) propose that vulnerable adolescents end up in repeating maladaptive patterns of musical engagement because they are unable to realize their own responsibility for allowing music to reinforce and fuel their negative emotions, ruminative tendencies and feelings of social isolation. Reflective awareness at the metacognitive level of observing and understanding the health-consequences of one's musical behavior can thus also be seen as an essential ability for fostering emotional balance and growth. This notion can further be expanded to discussion regarding the overall sense of self-control and self-agency regarding one's emotional engagement in music. In general, perceived control is known to be an important aspect of the coping process, as it increases the sense of agency and use of problem solving (Brannon & Feist, 2007; Compass, 1995). In relation to music, it has been proposed that the use of self-selected music brings autonomy and personalization to activities and facilitates emotional change (O'Neill & Sloboda, 2001). It has also been stated that music can be an important source of self-agency for adolescents (Gold, McFerran & Saarikallio, 2011), a resource of personal empowerment for the long-term ill (Batt-Rawden, et.al., 2005), and that the feeling of personal control may promote music-related pain management (Mitchell et.al., 2007). In addition, self-selected music is shown to be more effective than experimenter selected music in inducing pleasure (Blood & Zatorre, 2001), reducing pain (Bernatzky et al., 2012; Mitchell, et.al. 2007) and alleviating stress (Allen & Blascovich, 1994). These notions indicate that a health-fostering musical identity indeed should consist of a sense of agency and self-control regarding the various emotional effects that music so effortlessly seems to afford.

We can thus conclude that a musical identity that fosters emotional health essentially involves reflective awareness and sense of self-control regarding a set of complex emotional competencies related to recognition, induction and regulation of emotion in music. Furthermore, mastery of these emotional competencies may not be the optimal definition for a health-promoting musical identity – it may actually be the awareness of the possibility of music in nurturing and developing these abilities – and the willingness to learn, change, heal, and grow in relation to them. Finally, it needs to be acknowledged that the psychological processes and characteristics relevant for a health-promoting musical identity that have been brought forward in this chapter are only a propositional set of the underlying features and mechanisms and other aspects could also be included in a comprehensive theory. In particular, the studies reviewed here mainly focus on research conducted on music listening – research focused on music production might stress different mechanisms, such as the relevance of emotional self-expression and the concept of flow in relation to the induction of positive and rewarding experiences. In addition, the processes discussed here are strongly rooted in theories and concepts of general emotion research, so a word of encouragement to pay more attention to the particular qualities of music as an aesthetic domain is given for future work. Nonetheless, the ideas proposed in this chapter provide future research a clarifying framework for considering and understanding musical identity from the perspective of the basic emotional competencies and processes that are known fundamental for sustaining, enhancing, and fostering mental health and wellbeing.

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