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Sad music as a means for acceptance-based coping

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Abstract

Self-identified sad music (SISM) is often listened to when experiencing sad life situations. Research indicates that the most common reason people give for listening to SISM is "to be in touch with or express feelings of sadness". But why might this be the case? We suggest that one reason people choose to listen to sad music when feeling sad is to accept aversive situations. We tested if SISM is associated with acceptance coping and consolation. We hypothesized that SISM relates to acceptance-based coping via the recognition and identification of emotional states, and that people will report more acceptance from SISM than self-identified happy music when seeking consolation. In Study 1, participants recalled how happy or sad the music sounds that they normally listen to for consolation, and if they listen to this music to gain acceptance of negative moods and situations. In Study 2, participants reported their goals when listening to sad music during a recalled time in which they experienced an adverse life situation and whether this lead to acceptance. Study 1: People reported that they were more likely to listen to sad music than happy music when seeking consolation, though they preferred happy music in general. Listening to SISM (but not self-identified happy music) when seeking consolation was associated with acceptance of both a negative situation and the associated negative emotions. Additionally, seeking to deal with emotions was associated with both SISM listening (for consolation) and acceptance. Study 2: Listening to SISM to get in touch with and express affect was the most important self-regulatory strategy (of six examined) through which acceptance was recalled to be achieved. Experiencing adverse situations or seeking consolation, people report that listening to SISM is associated with acceptance coping (through the re-experiencing of affect). Implications for music therapy and theories of emotional coping are discussed.

Keywords

acceptance, aversive situations, coping, emotion, sad music, sadness, self-regulation

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People are more likely to listen to sad music when they are feeling sad or depressed than when in positive mood states (e.g., Hunter, Schellenberg, & Griffith, 2011; Wilhelm, Gillis, Schubert, & Whittle, 2013). This is true when the sad mood is chronic, and when it has been experimentally induced (Chen, Zhou, & Bryant, 2007). Indeed, the more time that passes after a negative mood induction, the less likely people are to choose to listen to sad music (Chen et al., 2007). But why, given that people generally prefer happy music (Chen et al., 2007), are people drawn to sad music when dealing with adversity?

Research testing functionalist approaches to emotion regulation (Tamir, 2009) indicates that people will seek out negative emotional experiences when doing so will help them obtain an important goal or outcome (e.g., Tamir, Mitchell, & Gross, 2006). This suggests that sad music listening might, in some cases, be sought out when people believe that it will be beneficial. Scholars have long argued that listening to sad music can help people cope with negative life circumstances (Garrido & Schubert, 2013; Matsumoto, 2002; Saarikallio & Erkkilä, 2007; Schubert, 2007). However, it remains to be tested if sad music is associated with higher levels of acceptance coping in negative life situations than happy music, why this might occur, and if people specifically seek out sad music more than happy music when wanting to experience acceptance.

In Study 1, we investigated if people recall to listen to self-identified sad music (SISM; Van den Tol & Edwards, 2013) or self-identified happy music (SIHM) when seeking consolation in difficult situations, and if listening to SIHM or SISM is associated with acceptance. In Study 2, we investigated the relationship between acceptance when listening to SISM (when dealing with adversity) and various self-regulatory goals (i.e., the expected psychological impact of the song; Van den Tol & Edwards, 2013).

Sad music and its functions

What is sad music? Emotion in music is broadly predicted by certain features in the song, but it is also a (subjective) product of the listener's associations with the music. In terms of the former, emotion perception in music stems partially from the features of the music, such as tempo, mode and sequence of tone use, instrument choice, dynamics, and volume (Gabrielsson & Lindström, 2001). High sound level, fast tempo and major chords are characteristics of happy music. In contrast, low sound levels, slow pace and minor chords are characteristics of sad music (Gabrielsson & Lindström, 2001; Juslin & Laukka, 2004, Khalfa, Roy, Rainville, Dalla Bella, & Peretz, 2008). Research indicates that people are very adept at recognizing which emotions are expressed and portrayed in music (Haack, 1980; Juslin & Laukka, 2004; Lindström, Juslin, Bresin, & Williamon, 2002). And, even though small differences exist in the accuracy of perception of expressed emotions in music, the general perception of emotions in music is robust, especially for happy and sad music (Haack, 1980; Juslin & Laukka, 2004; Lindström et al, 2002). This broadly suggests that SISM is similar in features to music with sad music features. Yet, the listener's relationship to the music (e.g., personal connection, memories and past experiences, perceived aesthetic value) undoubtedly plays an additional role in determining the depth of sadness or happiness you feel when listening to the music (Van den Tol, 2012b; van den Tol & Edwards, 2013, 2015; Van den Tol & Ritchie, 2015). Put differently, the tone of the music may lead it to be easily identifiable as sad or happy, but the felt emotional experience is also product of the unique relationship between the listener and the piece of music.

That sad music can lead to beneficial outcomes is consistent with research on the functionality of negative emotions (e.g., Gruber, Mauss, & Tamir, 2011; Tamir, 2009). Although people generally prefer positive emotions, there is evidence that people will seek out negative emotions

when they believe that doing so will aid in obtaining a desired outcome. For instance, when people believe that sadness will aid them in obtaining help from others, they are more likely to experience and seek out sadness (Hackenbracht & Tamir, 2010). There is also evidence that sadness can be beneficial, as it signals "reward replacement", in which a person seeks out potential new positive outcomes (as opposed to seeking to minimize suffering; Raghunathan & Pham, 1999), and facilitates performance in laboratory tests of attention (Jeffries, Smilek, Eich, & Ennus, 2008). Further, listening to sad music can, in some cases, improve mood (Garrido & Schubert, 2011; Sachs, Damasio, & Habibi, 2015; Taruffi & Koelsch, 2014; Van den Tol & Edwards, 2015; Vuokoski et al., 2012). As such, although negative emotions are often maladaptive, there is evidence that in some cases they can serve important, beneficial, functions.

A recent qualitative study using a Grounded Theory Approach (Corbin & Strauss, 1990) explored why people listen to SISM following adverse events (Van den Tol & Edwards, 2013). Based on this analysis, several self-regulatory functions were identified (Van den Tol & Edwards, 2013, 2015). Re-experiencing affect (called "Sadness" in Van den Tol & Edwards, 2015) is music listening with the purpose of getting in touch with, intensifying or expressing feelings of sadness. Memories and Social occurs when the music results in the recall of events or feelings related to friends and family. Cognition refers to an outcome in which people experience reappraisal and the thinking through of problems. Friendship refers to the feeling that the music is a symbolic friend, and Distraction refers to the use of music to keep away from unwanted feelings and thoughts. Lastly, Mood-enhancement is listening with the goal of improving mood. Although not directly categorized in any previous research on SISM, Acceptance of negative feelings has been mentioned by Van den Tol and Edwards (2013), as well as by Saarikallio and Erkkilä, (2007), who noted that listening to sad music may be used as a means to resolve problems, or to feel better about circumstances one cannot change. In summary, research indicates that people can readily identify and describe a wide range of important goals that can be served by sad music.

Acceptance-based coping

Coping is defined as the "cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). Common distinctions are made between two overarching groups of coping strategies: problem-solving coping and emotion-focused coping. The former refers to doing something active to solve a problem and alleviate stressful circumstances. The latter refers to regulating the emotional consequences of dealing with a situation (Folkman & Lazarus, 1980).

One type of emotion-focused coping is acceptance-based coping, which means coming to peace with the current situation, instead of trying to alter or deny the situation (Carver, Scheier, & Weintraub, 1989; Yi & Baumgartner, 2004). It is associated with self-compassion (Neff, Kirkpatrick, & Rude, 2007), reduced psychological and physiological responsiveness to threatening events (Levit, Brown, Orsillo, & Barlow, 2004; Wilson, Barnes-Holmes, & Barnes-Holmes, 2014), and a sense of meaningfulness (e.g., sense-making and feelings of personal significance; Park, 2010). People who are high in self-compassion are more likely to accept negative feedback without ruminating (Leary, Tate, Adams, Batts Allen, & Hancock, 2007). Further, acceptance as a coping style predicts significantly less anxiety and avoidance, relative to emotional suppression (Levit et al., 2004), and reduced skin-conductance (Wilson et al., 2014). Acceptance of a negative situation, such as the death of a loved one, is also associated with sense-making and feeling like one – despite a sense of great loss and tragedy – has benefitted in

some way (e.g., resilience, personal insight) from going through the experience (Davis, Nolen-Hoeksema, & Larson, 1998).

Prior research has established a link between acceptance coping and better mental health (Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Romer & Orsillo, 2002; Viane et al., 2003). Acceptance coping also is associated with heightened performance when dealing with a stressful work environment (Bond & Bunce, 2003). In turn, research into the use of SISM to elicit acceptance could have powerful implications for music therapy and understanding how people regulate sadness more generally. Consistent with this, studies show that expressing negative emotions via writing often leads to more positive mental and physical health outcomes (e.g., Pennebaker & Chung, 2011).

Sad music, experiencing sadness and acceptance coping

SISM might aid acceptance coping when dealing with negative life situations in a variety of ways. As sad music enables people to re-experience (negative) affect, it reduces denial in a way that happy music does not. That is, when listening to SISM when seeking solace, people not only are thinking about their problem (and hence can accept it), but they are potentially deeply feeling the emotions in a way that could lead to the problem being perceived as less daunting, and hence, as easier to accept (i.e., is this problem really worth the pain it is causing me?). Further, sadness, in contrast to happiness which is a high arousal emotion, slows down cognitive and physiological systems in an attempt to regain energy, and ultimately, to resolve the problem (Cunningham, 1988; Ekman, 2003; Pyszczynski & Greenberg, 1987). Additionally, sad music could function to enable people to experience self-compassion via the recognition that other people have had similar negative life experiences, especially when people are experiencing emotional distress or self-doubt (Van den Tol & Edwards, 2013). In contrast, happy music could promote self-criticism when people seek solace (i.e., they are so happy, why am I not happy?). Relatedly, sad music likely makes more sense and is more relatable to people when experiencing distress than happy music. Sense-making and coherence are essential aspects to perceiving meaning in life and accepting difficult life situations (Heintzelmann & King, 2014; Pennebaker & Chung, 2011). Taken together, this theorizing suggests that the experience of sadness (re-experiencing affect) through listening to SISM could serve as a broad catalyst in a wide range of functions that are beneficial to the experience of accepting difficult life situations and, ultimately, finding consolation.

Aims and overview of studies

The present research sought to take a closer look at how listening to SISM may contribute to acceptance of negative life situations. Two studies, using a quantitative cross-sectional survey approach, were conducted. The first study was designed to test if listening to SISM or SIHM is more likely to be listened to when seeking consolation, and if these types of music are associated with acceptance coping. The second study was designed to test if acceptance of adverse situations could be aided by listening to SISM and if this was more likely to be facilitated by the re-experiencing and identification of sad mood states than any other self-regulatory goals available through sad music (identified in Van den Tol & Edwards, 2013).

In Study 1, we hypothesized that SISM would relate to acceptance coping more so than SIHM, that people would listen more readily to SISM when seeking solace, and that this would be associated with the desire to cope with strong negative emotions. In Study 2, we hypothesized that re-experiencing negative affect would be related to acceptance of an aversive life

situation. Previous research indicates that people prefer happy music in general (Chen et al., 2007), but seek out sad music more readily when dealing with negative situations (Van den Tol, 2012a) and, more generally, negative affect when it might help them obtain an important goal (Tamir, 2009). Additionally, experiencing sadness (when in a negative situation) is more associated than happiness with a variety of factors that may promote acceptance (reduced physiological arousal, self-compassion, sense-making).

Study 1

In Study 1, we investigated if: a) people prefer SISM or SIHM in general, b) if people prefer SISM or SIHM when seeking consolation, and c) if listening to SISM or SIHM when seeking consolation is associated with acceptance. We hypothesized that people would report preferring SIHM to SISM, as past research indicates (Chen et al., 2007), and more frequent use of SISM than SIHM when wanting to experience consolation. We also hypothesized that SISM would be associated with acceptance, but that SIHM would not.

Participants

In total, 230 people (136 female, 94 males; M_{age} = 45.00, SD_{age} = 13.72, age range 18–70 years) volunteered to participate via invitation through the Dutch Radio 4. It was made clear that we were looking for volunteers who wanted to answer a survey on music listening and solace. Most participants (N = 146) had graduated from a university or college as their highest education.

Procedure and Materials

After consenting to be in the study, all participants completed an identical package of materials, which took approximately 40 minutes to complete. The data used in this study was part of a larger database that was gathered by a group of separate researchers who were all interested in the topic of solace and/or music listening (note: no data from this database has been previously published in any form prior to this special issue). All items were scored on a 5-point interval-scale ranging from 1 (I do not agree with this at all) to 5 (I very much agree with this) and were in the Dutch language. The larger study explored the self-regulatory activities people engages in when seeking solace, the characteristics of music that people believe provides solace, and behaviours that people engage in while listening to solace music (see Hanser et al., 2016, for a comprehensive overview of all items and questionnaires used). The items for the current study were located at the end of the survey and were used for the purpose of exploring the research questions outlined above. Items were not adapted from any existing questionnaire, but were specifically phrased to explore the hypotheses of this study.

Self-identified happy or sad music as consolation music. Participants rated two statements, one which assessed how happy participants recall the music to sound that they usually listen to when seeking consolation, and one that asked this regarding sadness. These items stated: "If I feel like needing consolation I will mostly listen to happy music" and "If I feel like needing consolation I will mostly listen to sad music" and were used as separate variables to test if people prefer either emotional music type more when seeking consolation.

Self-identified happy or sad favourite music. Following this, they rated one statement which assessed how happy their favourite music sounds, and one that assessed this for sad music. These items were "Most of my favourite music sounds happy" and "Most of my favourite music sounds sad" and were used to assess if people generally prefer either type of music.

Acceptance-based coping. Following this, participants rated two statements which assessed how relevant they believed the music that they would listen to when seeking acceptance and consolation to be. The first item measured the affective component of acceptance based coping and stated: "I listen to consolation music as a means to accept the sadness caused by a negative situation". The second item measured the situation component of acceptance-based coping and stated: "I listen to consolation music as a means to accept the negative situation". In this section, they also answered a question about the relevance of music for consolation when overwhelmed with emotions, "I will listen to music to find consolation when I am overwhelmed with negative feelings". This enabled us to see if one potential benefit to SISM in terms of acceptance is the experiencing of negative, overwhelming emotions.

Debriefing. After completion of the study, participants were thanked and debriefed about the purposes of the studies they participated in.

Results

Happy and sad music preference

To test preferences for sad and happy music, two within-subject ANOVAs were conducted. This analysis was appropriate as all participants completed all items. Also, please note that even though age may play a role in the effects of and motivations for listening to music (Lima & Castro, 2011; Saarikallio, 2010; Shifriss, Bodner, & Palgi, 2015), within-subjects ANOVA (also referred to as Repeated Measure) controls for the impact of all individual difference variables, making age redundant as a within-subjects covariate for this analysis (Delaney & Maxwell, 1981; Thomas et al., 2009).

One within-subject ANOVA investigated if participants in the sample indicated to favour SIHM or SISM in general. There was a preference for listening to SIHM in general ($M = 3.11$, $SD = 1.04$) over SISM, ($M = 2.75$, $SD = 0.98$), Wilks' Lambda = .96, $F(1, 229) = 9.42$, $p < .01$. The second within-subject ANOVA investigated if participants indicated to favour SIHM or SISM as a means for consolation. Results revealed that there was a preference for SISM ($M = 2.97$, $SD = 1.23$) over SIHM ($M = 2.56$, $SD = 1.08$), Wilks' Lambda = .96, $F(1, 229) = 9.91$, $p < .01$. Thus, although SIHM was preferred overall, participants indicated to prefer SISM when seeking consolation.

Happy and favourite music as a mean of acceptance-based coping

A series of partial correlations were then conducted, with age controlled for due to its potential role in music listening motivation (Saarikallio, 2010; Shifriss et al., 2014), to test which variables we assessed are associated with acceptance coping. Of all variables included (preference for SIHM in general, preference for SISM in general, happy consolation music listening, sad consolation music listening), only listening to SISM for consolation had a significant correlation with both variables assessing acceptance coping (see Table 1). Additionally, listening to SISM when seeking consolation correlated with listening to music when wanting to deal with overwhelming emotions, indicating that people seek out SISM to deal with negative emotional states (person *r*

Table 1. Partial correlations for study 1 (N = 239) controlled for age.

		2	3	4	5	6
1. If I feel a need for consolation I listen to sad music						
2. If I feel a need for consolation I listen to happy music	−.43***					
3. Most of my favourite music sounds sad	.41***	−.30***				
4. Most of my favourite music sounds happy	−.24***	.47***	−.52***			
5. I listen to consolation music as a means to accept the sadness caused by a negative situation	.33***	−.13, ns	.23***	.05, ns		
6. I listen to consolation music as a means to accept the negative situation	.21**	−.03, ns	.08, ns	.05, ns	.68***	
7. I will listen to music to find consolation when I am overwhelmed with negative feelings	.24***	.06, ns	.00, ns	.04, ns	.39***	.26***

Note. *p < .05; **p < .01; ***p < .001.

correlations that were not controlled for age indicated comparable results which supported the same hypotheses).

Discussion

In line with our predictions participants reported liking SIHM over SISM in general (Chen et al., 2007), but listening to SISM when seeking consolation. Moreover, only listening to SISM was significantly correlated with acceptance of both the situation and negative emotions related to the situation. Listening to SIHM yielded no such relation (nor did general preference for either SIHM or SISM). Additionally, the desire to deal with "overwhelming" emotions correlated with acceptance and listening to SISM when seeking solace, suggesting a potential reason why SISM was associated with more acceptance.

Study 2

Study 1 indicates that people report using SISM more than SIHM when seeking consolation, and that this self-reported listening to SISM (but not SIHM) is associated with acceptance coping. Moreover, there was a positive relationship between both of these variables and wanting to deal with "overwhelming" emotions. But does re-experiencing affect predict acceptance in adverse situations? The hypothesis for Study 2 was that re-experiencing affect is the strongest, most consistent (of all self-regulatory functions) predictor of acceptance- coping when listening to SISM after and adverse event.

Participants

A total of 220 people (135 females, 80 males and 5 undisclosed; M_{age} = 28.30, SD_{age} = 11.51, age range 18–69 years) volunteered to participate via email invitation through various social research networks (such as Psychological-Research-on-the-Net, Online Social Psychology Studies, Psychology Participants & Researchers) that were found by searching the internet with the search

words "social science research". The invitation clearly stated that we were looking for volunteers who sometimes listened to sad music after an adverse event (hence this excluded people who had never listened to SISM after an adverse event) and asked them to volunteer in a study that was conducted in order to investigate people's motivations to listen to sad music when feeling sad. Twenty-six nationalities were represented, with the largest number consisting of people from the United States (84), Ireland (38), the Netherlands (24), England (9) and Australia (6).

Five participants failed a basic attention task, so their data were not included in any analyses. This task asked them to select the "not applicable" option from a list, once in the middle of the survey and once at the end. This was included to ensure the quality of participation in terms of attention, but also English language comprehension (in Study 1, as all participants were Dutch and the survey was in Dutch, these measures were not necessary in terms of examining comprehension).

Procedure and materials

The invitation to participate in this study included a link to the website on which the study was conducted. The website on which the study was conducted provided a detailed information sheet, a consent form, and the actual study. After consenting to be in the study, all participants completed an identical packet of materials (based on Van den Tol & Edwards, 2015), which took approximately 40 minutes to complete. All items were scored on a 5-point interval-scale ranging from 1 (I do not agree with this at all) to 5 (I very much agree with this).

SISM listening directions. Participants were first instructed to think back to an adverse event after which they had listened to music they identified as sad, and clearly recall this experience in their mind. Participants did not write about their experiences and no time specifications were given for this activity.[1]

Self-regulatory goals and acceptance-based coping. Participants were also asked to indicate their self-regulatory goals for listening to the sad music (i.e., what they hoped to achieve by listening). Based on prior work utilizing factor analysis, items were grouped into six categories that represented self-regulatory goals (memories and social, distraction, re-experiencing affect, cognitions, friendship, mood-enhancement; Van den Tol & Edwards, 2013). The items on acceptance-based coping were added to this section of the survey. This part of the scale included 28 items (see Table 2 for all items). An example of an item that represented using music for acceptance-based coping was, "The reasons I listened to the sad music was to make me feel more accepting towards my feelings and thoughts". For each goal, the scale was found to be reliable (αs ranged from .74 to .91).[2]

Demographics and debriefing. After completing the entire study, participants were asked to provide their age, nationality and gender. They were then thanked and debriefed about the purposes of the study.

Results

Relationships between self-regulatory goals and acceptance

We wanted to test if re-experiencing affect is the strongest predictor of acceptance-based coping (that we analysed) when listening to SISM after an adverse event. To do so, all

Table 2. Overview of items and their grouping.

Self-regulatory goals	*M*	*SD*
The reasons I listened to the sad music was...		
...to bring back memories (Mem)	3.74	1.26
...to remind me of people I know (Mem)	3.55	1.34
...to remind me of people that have passed away (Mem)	3.34	1.46
...to feel connected to people I know (Mem)	3.03	1.36
...to feel a connection with people that have passed away (Mem)	3.14	1.47
...to get in touch with my emotions and thoughts (Sad)	3.51	1.38
...to enter into a safe place where I can get away from my problems (Dis)	3.15	1.48
...to distance myself from the problem (Dis)	2.58	1.35
...to focus my attention on something else (Dis)	2.69	1.42
...to release my emotions (Sad)	3.63	1.37
...to make me experience emotions related to my life's circumstances (Sad)	3.36	1.4
...to cry (Sad)	3.33	1.56
...to grieve (Sad)	3.35	1.41
...to express my feelings and thoughts (Sad)	3.52	1.3
...to strengthen my emotions (Sad)	3.22	1.39
...to see things from a different perspective (Cog)	2.81	1.36
...to get a more realistic view of my feelings and thoughts (Cog)	2.77	1.41
...to better understand whatever situation I am in (Cog)	2.82	1.45
...to really experience and express my emotions in the hope that I can then move on (Sad)	3.15	1.47
...to feel understood (Fri)	2.77	1.5
...to feel like I am being empathized with (Fri)	2.83	1.42
...to feel befriended by the music (Fri)	2.73	1.4
...to feel less alone (Fri)	2.66	1.43
...to be cheered up (M-E)	2.64	1.23
...to make me feel more accepting towards my feelings and thoughts... (Acc)	3.24	1.33
...to feel good (M-E)	2.96	1.3
...to make me feel better (M-E)	3.06	1.29
...to make me cope with the situation (Acc)	3.56	1.2

Note. MT = Memory triggers (α = .81), Dir = Direction (α = .87), HAV = High aesthetic value (α = .83), Con = Connection (α = .71), Mem = Memories and Social (α = .90), Dis = Distraction (α = .83), Sad = Re-experiencing affect (α = .90), Cog = Cognitions (α = .89), Fri = Friendship (α = .91), Acc = Acceptance (α = .74), M-E = Mood-enhancement (α = .87).

self-regulatory goals and age (due to its role in music listening motivation; Saarikallio, 2010; Shifriss et al., 2014) were entered at once into a multiple regression analysis as independent variables, with acceptance as the dependent variable. This simultaneous regression method was chosen as it allows a comparison across all potential independent variables, without giving preference to any specific variable, while controlling for overlapping variance among the independent variables (hence being a rather conservative method to test our hypothesis). One limitation of alternative multiple regression models is that these models become less reliable (favouring independent variables that are entered earlier into the model over those that are entered later) as the number of independent variables increases (see Cohen, Cohen, West, & Aiken, 2013).

Table 3. (Simultaneous) multiple regression analysis on acceptance coping and different self-regulatory goals (controlled for age).

Self-regulatory goals	β	SE	T	p
Memories and Social	−.03	.04	−.71	*n.s.*
Cognitions	.21	.05	3.94	< .001
Distraction	.12	.05	2.49	< .05
Re-experiencing affect	.46	.05	9.40	< .001
Friend	.14	.05	2.80	< .01
Mood-enhancement	.19	.05	4.03	< .001
Age	< −.01	<.01	−.15	*n.s.*

Note. Model coefficients: $R^2 = 0.74$, $F(2, 212) = 84.07$, $p < .0001$.

Results of the multiple-regression analysis indicated that re-experiencing affect, cognitions, mood-enhancement, friend and distraction were all significantly related to acceptance coping (see Table 3) when listening to self-identified sad music after adverse events. However, the results supported our hypothesis that re-experiencing affect has the largest relationship (β = .46, $T = 9.39$, $SE = 9.40$ $p = < .0001$) to acceptance across all self-regulatory goals (please note that data yields similar conclusions with age not entered into the analysis).

Discussion

The results of Study 2 indicated that listening to SISM after an adverse event relates to acceptance-based coping, and that across the self-regulatory goals, re-experiencing affect had the strongest relationship to acceptance. These findings are in line with our hypothesis that the re-experiencing and identification of sad mood states aids to the acceptance of adverse situations following listening to SISM.

The functions Cognitions, Mood-enhancement, Friend, and Distraction were additionally associated with higher levels of acceptance coping. Even though these associations were not as strong as re-experiencing affect, this means that elements besides those that help one to be in touch with one's sadness additionally contribute to being able to move on and accept a negative situation. Thus, sad music appears to function in several ways that aid acceptance coping.

General discussion

Why do people often listen to sad music when dealing with negative life situations (Van den Tol & Edwards, 2013, 2015)? Functionalist approaches to emotion (e.g., Tamir, 2009) suggest that negative emotion-inducing situations are sought out when doing so helps fulfil a specific goal or need. One possible function of listening to sad music listening may be for it to aid to the acceptance of difficult life situations (e.g., Saarikallio & Erkkilä, 2007; Van den Tol & Edwards, 2013). We tested this across two studies.

Study 1 indicated that when seeking consolation people are more likely to listen to SISM than SIHM, though they prefer SIHM in general, and that listening to SISM, but not SIHM, related to acceptance. Thus, not only did SISM relate to acceptance, but people report actively seeking out SISM when wanting to experience acceptance. And further, both acceptance and SISM listening correlated with wanting to deal with overwhelming emotions. The results of Study 2 suggest that people are particularly likely to listen to sad music for acceptance when the

music is chosen as a means of feeling and experiencing one's sadness (i.e., re-experiencing affect when selecting self-identified sad music).

Implications

This research builds on past research demonstrating both positive consequences (Van den Tol & Edwards, 2013, 2015) and negative consequences (Garrido & Schubert, 2011; Van den Tol & Edwards, 2013) of listening to sad music. It indicates that voluntarily listening to SISM can aid in experiencing acceptance coping and consolation when experiencing negative life situations. Given the benefits of acceptance coping on physical and mental health (Campbell-Sills et al., 2006; Hayes, Strosahl, & Wilson, 1999; Heffner, Eifert, Parker, Hernandez, & Sperry, 2003; Romer & Orsillo, 2002; Viane et al., 2003), this has potentially important implications for music-based therapies. This is said, however, with great caution. Listening to sad music generally reduces positive mood in normal circumstances with non-depressed participants and is more common among people that are prone to rumination (Garrido & Schubert, 2011). Moreover, therapists (and others) should be aware that people's urge to engage in listening to sad music may be an indicator of them experiencing emotional distress (Matsumoto, 2002) – indeed in Study 1, listening to sad music to experience consolation correlated with wanting to deal with negative emotions.

It appears, then, that listening to sad music relates to worse mental health (given that people listen to it more when distressed), but that the effects of listening to sad music can sometimes be positive. Thus, we would urge researchers to avoid concluding that sad music has exclusively positive, or exclusively negative, consequences, and to be careful when interpreting mental health effects of listening to sad music (i.e., measuring mood in general, or indicators of poor mental health such as neuroticism or depression, and then correlating it with sad music listening will likely lead to a positive correlation, but this does not mean in itself that listening to sad music has an overall negative impact on mental health. To give a physical health example, the presence of asthma inhalers would certainly be associated to asthma, but that does not mean that asthma medicine does not help people with asthma).

This research also has implications for recent functionalist approaches to emotions (Tamir, 2009). In line with this research, people generally preferred positive emotional experiences to negative emotional experiences. However, when specific goals were needed (consolation, acceptance), people indicated to seek out a sad emotional state (sad music) that they thought would help them achieve that aim.

Limitations and future directions

In terms of the generalizability and validity of the current results, it should be noted that these studies were not experimental in design, nor did we assess actual behaviour when people were experiencing an adverse situation. We rather relied on self-report data in which people indicated what they do when seeking consolation and wanting acceptance. Although challenging (in terms of ethics, participants' time and researchers' resources) future research may try to verify the current results under conditions that do allow testing causality, such as by following participant's music listening behaviour on a music app that monitors the effects of listening over time (Randall, Rickard, & Vella-Brodrick, 2014).

Moreover, a retrospective survey design was used in both studies, meaning that findings represent people's recollection of having listened to SISM when feeling sad or seeking consolation rather than people's experiences while engaging in this behaviour. As cognitive psychology

research shows, memory can be biased by a wide range of factors that could lead it to deviate from what actually occurred (Ritchie et al., 2009). It is thus important for future researchers to employ more immediate measures, as well as to pay close attention to immediate versus distal consequences of listening to sad music (i.e., it may differ in its short term and long term effects, and the current study may tap more into the latter). As people do not always consciously decide to listen to music (Garrido & Schubert, 2011; Maher, Van Tilburg, & Van den Tol, 2013) a task for future research may also be to investigate if involuntarily music listening, and listening without any specific motivation yields similar results to those of the current research.

Another important limitation of the current research involved the recruitment and sampling for both studies. The results of Study 1 were based on self-report of radio listeners who volunteered to participate in a questionnaire on music and solace. This may have meant that participants had a greater interest in these topics than people in a broader population (though it is hard to imagine how this would impact views of sad music, relative to happy music, it is possible that these differences may occur only for people with a high interest in music). Further, participants in Study 2 were self-selected to have listened to sad music when feeling sad and may, hence, have a more positive opinion about the consequences of engaging in such behaviour than other people. Indeed, not everyone reports benefits from listening to sad music when feeling sad (Garrido & Schubert, 2011; Peltola & Saresma, 2014; Van den Tol & Edwards, 2013) and non-voluntarily exposure to sad music reduces positive mood in normal circumstances with non-depressed participants (Garrido & Schubert, 2011).

In the current article, we have only examined SISM and SIHM as a source of acceptance-based coping through music. Given that, it is unclear if the results of Study 1 are on account of SIHM being particularly poor for acceptance when seeking consolation, or if SISM is driving these effects. Further, in Study 2, only SISM was explored, so it is impossible to know if re-experiencing affect (or Memories, Distraction, Mood enhancement, or Cognition, which also predicted acceptance) might also relate to acceptance following other types of music. The findings of a recent correlational study (Hanser et al., 2016) indicated that solace music is aesthetically pleasing, emotionally moving, sad, calming, and somewhat empowering (but not tense and boring). It makes sense then that any music with these traits might aid acceptance coping in so far as they enable the self to avoid denial, slow down and reflect, and obtain a sense of meaning (in terms of coherence and personal growth), all of which are beneficial to acceptance coping. That is, it is unclear if it is a specific trait of SISM that is aiding acceptance, or if it is the characteristics of SISM that are aiding acceptance in the current research. That being said, for reasons already laid out, these musical traits that aid acceptance might tend to be more associated with sad music than other types of music.

Conclusion

People often listen to sad music when feeling sad. The current research demonstrates that even though people generally prefer SIHM over SISM, they indicate to prefer SISM to SIHM when seeking consolation and that listening to SIHM (or favourite music in general) was unrelated to acceptance or consolation. Moreover, listening to SISM may serve the function of promoting acceptance coping and consolation during aversive life situations, especially when doing so enables one to feel, be in touch with, and experience one's own sadness. While much research remains to be done, this work suggests that it is possible that SISM could be used as a means of improving mental health in some situations. Given the popularity of SISM, and that listening to it increases under negative life situations, this is an important step in understanding why this occurs.

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Notes

1. Participants' music selection strategies were then assessed (i.e., why they selected a specific piece of sad music see introduction and Van den Tol & Edwards, 2013). However, this data was not used in the analysis for the write up of the current study in order not to complicate the current paper unnecessarily (largely at the request of the reviewers). The authors are happy to provide data with regards to these items for the interested reader.
2. Upon completing the self-regulatory goals, people also completed a list of similar items on self-regulatory effects. In order not to complicate the current article (at the request of the reviewers), we decided to only report results for self-regulatory goals. The authors are happy to provide the results of these analyses to interested readers.

References

Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology*, *88*(6), 1057–1067.

Campbell-Sills, L., Barlow, D. H., Brown, T. A., & Hofmann, S. G. (2006). Effects of suppression and acceptance on emotional response of individuals with anxiety and mood disorders. *Behaviour Research and Therapy*, *44*(9), 1251–1263.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283.

Chen, L., Zhou, S., & Bryant, J. (2007). Temporal changes in moor repair trough music consumption: Effects of mood, mood salience, and individual differences. *Media Psychology*, *9*(3), 695–713.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. New York: Routledge Press.

Corbin, J., & Strauss, A. (1990). Grounded theory method: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, *13*(1), 3–21.

Cunningham, M. R. (1988). What do you do when you're happy or blue? Mood, expectancies, and behavioral interest. *Motivation and Emotion*, *12*(4), 309–331.

Davis, C. G., Nolen-Hoeksema, S., & Larson, J. (1998). Making sense of loss and benefiting from the experience: Two construals of meaning. *Journal of Personality and Social Psychology*, *75*(2), 561–574.

Delaney, H. D., & Maxwell, S. E. (1981). On using analysis of covariance in repeated measures designs. *Multivariate Behavioral Research*, *16*(1), 105–123.

Ekman, P. (2003). *Emotions revealed: Recognizing faces and feelings to improve communication and emotional life*. New York, NY: Times Books.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, *21*(4), 219–239.

Gabrielsson, A., & Lindström, E. (2001). The influence of musical structure on emotional expression. In P. N. Juslin & J. A. Sloboda (Eds.), *Music and emotion: Theory and research* (pp. 223–248). New York, NY: Oxford University Press.

Garrido, S., & Schubert, E. (2011). Individual differences in the enjoyment of negative emotion in music: A literature review and experiment. *Music Perception*, *28*(3), 279–295.

Garrido, S., & Schubert, E. (2013). Adaptive and maladaptive attraction to negative emotions in music. *Musicae Scientiae*, *17*(2), 147–166.

Gruber, J., Mauss, I. B., & Tamir, M. (2011). A dark side of happiness? How, when, and why happiness is not always good. *Perspectives on Psychological Science*, *6*(3), 222–233.

Haack, P. A. (1980). The behavior of music listeners. In D. Hodges (Ed.), *Handbook of music psychology* (pp. 141–182). Lawrence, KS: National Association for Music Therapy.

Hackenbracht, J., & Tamir, M. (2010). Preferences for sadness when eliciting help: Instrumental motives in sadness regulation. *Motivation and Emotion, 34*(3), 306–315.

Hanser, W. E., ter Bogt, T. F. M., Van den Tol, A. J. M., Mark., R. E., & Vingerhoets, A. J. J. M. (2016). Consolation through music: A survey study. *Music Scientiae*, *20*(1), xxx–xxx.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experimental approach to behaviour change*. New York, NY: Guilford Press.

Heffner, M., Eifert, G. H., Parker, B. T., Hernandez, D. H., & Sperry, J. A. (2003). Valued directions: Acceptance and commitment therapy in the treatment of alcohol dependence. *Cognitive and Behavioral Practice*, *10*(4), 378–383.

Heintzelman, S. J., & King, L. A. (2014). (The feeling of) Meaning-as-information. *Personality and Social Psychology Review*, *18*(2), 153–167.

Hunter, P. G., Schellenberg, E. G., & Griffith, A. T. (2011). Misery loves company: Mood-congruent emotional responding to music. *Emotion*, *11*(5), 1068–1072.

Jefferies, L. N., Smilek, D., Eich, E., & Enns, J. T. (2008). Emotional valence and arousal interact in attentional control. *Psychological Science*, *19*(3), 290–295.

Juslin, P. N., & Laukka, P. (2004). Expression, perception, and induction of musical emotions: A review and a questionnaire study of everyday music listening. *Journal of New Music Research*, *33*(3), 217–238.

Khalfa, S., Roy, M., Rainville, P., Dalla Bella, S., & Peretz, I. (2008). Role of tempo entrainment in psychophysiological differentiation of happy and sad music. *International Journal of Psychophysiology*, *68*(1), 17–26.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology*, *92*(5), 887–904.

Levit, J. T., Brown, T. A., Orsillo, S. M., & Barlow, D. H. (2004). The effects of acceptance versus suppression of emotion on the subjective and physiological response to carbon dioxide challenge in patients with panic disorder. *Behavior Therapy*, *35*(4), 747–766.

Lindström, E., Juslin, P. N., Bresin, R., & Williamon, A. (2002). Expressivity comes from within your soul: A questionnaire study of music students' perspectives on expressivity. *Research Studies in Music Education*, *20*(1), 23–47.

Lima, C. F., & Castro, S. L. (2011). Emotion recognition in music changes across the adult life span. *Cognition and Emotion*, *25*(4), 585–598.

Maher, P., Van Tilburg, W. A., & Van den Tol, A. J. M. (2013). Meaning in music: Deviations from expectations in music prompt out-group derogation. *European Journal of Social Psychology*. *43*(6), 449–454.

Matsumoto, J. (2002). Why people listen to sad music: Effects of music on sad moods. *Japanese Journal of Educational Psychology*, *50*(1), 23–32.

Neff, K. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, *2*(2), 85–101.

Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality*, *41*(1), 139–154.

Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin, 136*(2), 257–301

Peltola, H. R., & Saresma, T. (2014). Spatial and bodily metaphors in narrating the experience of listening to sad music. *Music Scientiae*, *18*(3), 292–306.

Pennebaker, J. W., & Chung, C. K. (2011). Expressive writing and its links to mental and physical health. In H. S. Friedman (Ed.), *Oxford handbook of health psychology* (pp. 417–437). New York, NY: Oxford University Press.

Pyszczynski, T., & Greenberg, J. (1987). Self-regulatory perseveration and the depressive self-focusing style: A self-awareness theory of reactive depression. *Psychological Bulletin, 102*(1), 122–138.

Raghunathan, R., & Pham, M. T. (1999). All negative moods are not equal: Motivational influences of anxiety and sadness on decision making. *Organizational Behavior and Human Decision Processes*, *79*(1), 56–77.

Randall, W. M., Rickard, N. S., & Vella-Brodrick, D. A. (2014). Emotional outcomes of regulation strategies used during personal music listening: A mobile experience sampling study. *Musicae Scientiae*, *18*(3), 275–291.

Ritchie, T., Skowronski, J. J., Hartnett, J., Wells, B., & Walker, W. R. (2009). The fading affect bias in the context of emotion activation level, mood, and personal theories of emotion change. *Memory*, *17*(4), 428–444.

Romer, L., & Orsillo, S. M. (2002). Expanding our conceptualization of and treatment for generalized anxiety disorder: Integrating mindfulness/acceptance based approaches with existing cognitive-behavioural models. *Clinical Psychology: Science and Practice*, *9*(1), 54–68.

Saarikallio, S. (2010). Music as emotional self-regulation throughout adulthood. *Psychology of Music*, *39*(3), 307–327.

Saarikallio, S., & Erkkilä, J. (2007). The role of music in adolescents' mood regulation. *Psychology of Music*, *35*(1), 35–38.

Sachs, M. E., Damasio, A., & Habibi, A. (2015). The pleasures of sad music: A systematic review. *Frontiers in Human Neuroscience*, *9*, 404. doi:10.3389/fnhum.2015.00404

Schubert, E. (2007). The influence of emotion, locus of emotion and familiarity upon preference in music. *Psychology of Music*, *35*(3), 499–515.

Shifriss, R., Bodner, E., & Palgi, Y. (2015). When you're down and troubled: Views on the regulatory power of music. *Psychology of Music*, *43*(6), 793–807.

Tahlier, M., Miron, A. M., & Rauscher, F. H. (2013). Music choice as a sadness regulation strategy for resolved versus unresolved sad events. *Psychology of Music*, *41*(6), 729–748.

Tamir, M., Mitchell, C., & Gross, J. J. (2006). Hedonic and instrumental motives in anger regulation. *Psychological Science*, *19*(4), 324–328.

Tamir, M. (2009). What do people want to feel and why? Pleasure and utility in emotion regulation. *Current Directions in Psychological Science*, *18*(2), 101–105.

Taruffi, L., & Koelsch, S. (2014). The paradox of music-evoked sadness: An online survey. *PloS One*, *9*:e110490. doi:10.1371/journal.pone.0110490

Thomas, M. S. C., Annaz, D., Ansari, D., Serif, G., Jarrold, C., & Karmiloff-Smith, A. (2009). Using developmental trajectories to understand developmental disorders. *Journal of Speech, Language, and Hearing Research*, *52*(2), 336–358.

Van den Tol, A. J. M. (2012a). *Happy and sad music: On the role of emotions and appraisals in the decision to engage in music listening*. Poster presentation at the '40th year SEMPRE conference', Institute of Education, London, UK. Abstract published in conference booklet.

Van den Tol, A. J. M. (2012b). A self-regulatory perspective on people's decision to engage in listening to self-selected sad music when feeling sad (Unpublished doctoral dissertation). University of Limerick, Ireland.

Van den Tol, A. J. M., & Edwards, J. (2013). Exploring a rationale for choosing to listen to sad music when feeling sad. *Psychology of Music*, *41*(4), 440–465.

Van den Tol, A. J. M., & Edwards, J. (2015). Listening to sad music in adverse situations: How music selection strategies relate to self-regulatory goals, listening effects, and mood enhancement. *Psychology of Music*, *43*(1), 473–494.

Van den Tol, A. J. M., & Ritchie, T. D. (2015). Emotion memory and music: A critical review and recommendations for future research. In M. R. Strollo & A. Romano (Eds.), *Music, memory and autobiography: An interdisciplinary approach*, (pp. 16–32). Naples, Italy: Liguori Editore.

Viane, I., Crombes, G., Eccleston, C., Poppe, C., Devulder, J., Van Houdehove, B., & De Corte, W. (2003). Acceptance of pain is an independent predictor of well-being with chronic pain: Empirical evidence and reappraisal. *Pain*, *106*(1), 65–72.

Vuoskoski, J. K., Thompson, W. F., McIlwain, D., & Eerola, T. (2012). Who Enjoys Listening to Sad Music and Why? *Music Perception*, *29*(3), 311–317.

Wilhelm, K., Gillis, I., Schubert, E., & Whittle, E. L. (2013). On a blue note: Depressed people's reason for listening to music. *Music and Medicine*, 5(2), 76–83.

Wilson, C. J., Barnes-Holmes, Y., & Barnes-Holmes, D. (2014). The effect of emotion regulation strategies on physiological and self-report measures of anxiety during a stress-inducing academic task. *International Journal of Psychology and Psychological Therapy*, *14*(1), 1–15.

Yi, S., & Baumgartner, H. (2004). Coping with negative emotions in purchase-related situations. *Journal of Consumer Psychology*, *14*(3), 303–317.