**Affective States, Familiarity, and Music Selection: Power of Familiarity**

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**Abstract**

This study is aimed to examine the influence of familiarity of media contents (music) and affective states (sad vs. happy) on music selection. Based on the previous studies on mood and selective exposure, it was assumed that both sad and happy individuals will prefer to listen to low energetic-joyful (sad) music over the high energetic-joyful music. However, it was predicted that unfamiliarity of the music will prevent such preference tendency for sad people but in some degree it will incite curiosity of happy people. The results confirmed that the familiarity of the music is more important factor in music selection than the current sad or happy feelings. However, the happy participants showed similarly low preference for the unfamiliar music as the sad participants did. Unexpectedly, the unfamiliar/low energetic-joyful music provided sad participants with happy and energetic affects. The familiar/high energetic-joyful music enjoyed more but both types of music were favorably rated.

*Keywords*: sad and happy affective states, familiarity of music, music selection, affects and enjoyment, mood management, media entertainment

**Introduction**

Affective states are often related to preference for certain types of media stimuli for a mood regulation purpose – eliminating an aversive mood and maintaining a positive mood (Zillmann, 1988a; Oliver, 2003). As an easily accessible media entertainment in a daily life, people enjoy music for various purposes and mood regulation is one of the important reasons for listening to music (Saarikallio & Erkkila, 2007). Although several studies showed that selective exposure to hedonically positive media contents for altering negative moods (Meadowcroft & Zillmann, 1987; Anderson et al., 1996; Knobloch & Zillmann, 2002; Knobloch & Scott; 2006), individuals in a negative mood often showed preference for media fare containing hedonically negative valence. Especially, sad people tended to prefer sad entertainment including sad music (Erber & Erber, 2000; Oliver, 2003; Knobloch & Zillmann, 2003; Hansen, 2003; Chen et al., 2007).

One explanation for the reason why sad individuals are attracted to sad media entertainment is that they are seeking for dramatic feature of sad media contents and the subsequent touching feelings (Oliver, 2008). It was also shown that although happy-sounding music is generally more liked than sad-sounding music, individuals liked both happy music and sad music in a similar degree when they listened to the music incidentally (as background music) and the repeated exposure to sad music increased listeners’ liking rating (Schellenberg, 2008).

For certain reasons, a sad affective state seems to attract people to a sad music and repeated experiences of sad music tends to increase their favorable evaluation of the sad music. This implies that a previous exposure to sad music under a sad affective state and experiences of enjoying the music are important factors to select sad music when feeling sad. Then, what about unfamiliar sad music? Will people in a sad affective state be still attracted to a sad music even if it is not familiar to them? Also, will they be able to enjoy the unfamiliar music?

This study elaborates on the influence of familiarity of media entertainment on media selection for mood enhancement and enjoyment while assuming that familiarity of media contents will be built on the previous exposure to them and that people know what kind of emotional experience and how much enjoyment they will get from particular types of media fare. Thus, by providing participants with high energetic-joyful US popular music (familiar music) and low energetic-joyful Korean (unfamiliar) music to people in a sad affect and a happy affect, how sad and happy affective states and familiarity of the music influence music selection will be examined.

**Affective states, familiarity, and selective exposure**

Although sad entertainment causes sad feelings, sad people have shown a consistent preference for sad films or sad music and tend to avoid happy media contents. In Chen et al.’s (2007) study, participants in a sad mood showed a preference for low joyful (sad) music over high joyful music in a greater degree than participants in a happy mood did. In another study, romantically dissatisfied individuals also preferred to listen to sad love songs over cheerful love songs (Knobloch & Zillmann, 2003). People’s depression due to experience of a divorce were also found to be positively associated with preference for tragedy movies and soft music and negatively associated with listening to happy music (Hansen, 2003).

Despite of relationships between affective states and media preference, popularity or familiarity of media contents seems to have a stronger impact on media selection than current affective states. In a study about a selection between a popular drama and a unpopular comedy (Kim, 2009 presented in 2009 ICA conference), the initially different mood states did not make any significant difference in the selection. Both participants in a negative mood and a neutral mood preferred to view a popular sad drama over a non-popular comedy. Although the media content does not fit to what the negative mood might have called at the moment, selecting the likable and familiar (popular) media content might be a reasonable choice for individuals in the negative mood because they would expect a greater enjoyment from it than from the unfamiliar and distasteful comedy. Thus, even if the emotional experience of the drama might be somewhat depressing, such emotional experience could have been perceived enjoyable to those who liked the show. In the same sense, sad people might want to seek for enjoyment or something meaningful in relation to their sadness by listening to sad music. However, if the music is not familiar, it might be hard for them to have such an expectation. The influence of familiarity in selecting media entertainment was also shown in a game study (Reinecke et. al., 2008), too. In the study, participants’ low arousal state did not make any difference in preference for playing a computer game over not playing when participants did not have a prior experience of playing a computer game before the main experiment. However, among those who had a prior experience of playing a computer game, more participants chose to playing the game rather than not playing. As these study results show, unfamiliarity of music might also prevent sad people from getting drawn to sad music.While assuming that sad people will prefer low energetic-joyful music over high energetic-joyful based on a previous research (Chen, et al. 2007; Chen, 2006), the first hypothesis of this study was as follows:

H1: Sad individuals will prefer listening to familiar/highly energetic-joyful music over unfamiliar low energetic- joyful music.

Unlike sad people, those experiencing better feelings than sadness seem to similar degree of interest in both sad and joyful music. In the same study (Chen et al, 2007), participants in a neutral mood seemed to listen to the low joyful and joyful songs for the equal amount of time[[1]](#footnote-1). In another music selection study (Knobloch & Zillmann, 2002), although participants in a bad mood (disappointment or annoyance) listened to highly energetic-joyful music longer time than music in opposite quality, those in a good mood (satisfaction) spent less than half of the total time in listening to the highly energetic-joyful music. These results might show that happy people also prefer low energetic-joyful music or they don’t have a particular preference between two types of music. The good mood group also showed higher frequency in music selection. As Knobloch and Zillmann (2002) interpreted, the good mood group’s high frequent change of songs implies that unlike negative affective state like sadness and annoyance, the happy affective state might be more likely to free the people from a mood management motivation and let them to try various music.Assuming that happy people might show greater interest in unfamiliar music than sad people, the second hypothesis was as follows:

H2: Individuals in happy states will choose unfamiliar low energetic-joyful music more than those in sad affective states will do.

**Affects states and enjoyment after music listening**

Hedonic valence and arousal level of music is also related to emotional responses of music listeners. It has been shown that music with fast tempo and major mode causes happy and pleasant feelings whereas music with slow tempo and minor mode provided sad and unpleasant feelings (Hunter et al., 2008). Thus, although one type of music is not familiar while the other is familiar, the similar emotional responses can be expected in this study.

However, the enjoyment of either type of music is still in question. In the previous two studies, participants in two different mood conditions (bad and good or sad and neutral) showed similar degree of enjoyment regarding their musical experiences (Knobloch & Zillmann, 2002; Chen, 2006). Also, in another study, participants who watched a sad and serious drama felt sad after the media consumption but they enjoyed the show as much as those who viewed the comedy did (Kim, 2009). These studies indicated that sadness or negative moods that people experienced through music listening or television viewing did not affect enjoyment of the media fare negatively. Kim (2009) interpreted the equally high enjoyment of the drama and comedy as an indication of the viewers’ favorable feeling toward their sad experience. It also has been revealed that enjoyment of sad feelings is positively related to experience of sad feelings through the films and enjoyment of experiencing sadness (Oliver, 1993). Thus, it is highly possible that even if people experience sad feelings after music listening, they will rate the music and musical experience favorably.

On the other hand, it is also possible that unfamiliarity of music might influence enjoyment of music. Even if the non-popular (unfamiliar and low likable) comedy was equally enjoyed as popular drama, the plot and humorous feature of the US comedy show could be familiar with American viewers after all. However, music from another country and culture could provide totally different impression and experience although it has similar features in terms of arousal and joyfulness of music. If unfamiliar music is perceived as distasteful, it might cancel out influence of sad experience on rating of music. Thus, one research question of the study was as follows:

R1: Willlisteners of unfamiliar/low energetic-joyful music (Korean pop) enjoy as much as those who listen to familiar/highly energetic-joyful music (US pop) do?

**Method**

**Participants**

146 students from a large US university participated in the study for a research credit. After excluding 15 cases where induction of the intended affective states – sad or happy was failed, 131 cases were used for analysis.

**Research design and procedure**

This study employed a research design similar to the studies of Chen (2006) and Knobloch and Zillmann (2002). In the first session of the study, 64 participants were assigned to a sad affect condition and 67 participants were assigned to a happy affect condition. By viewing a video clip and commercials, they were induced to feel sad or happy. After rating their feelings and the clips and providing background information, in the second session, participants were asked to listen to music. Unlike the previous similar studies, the participants in this study were forced to make one time selection between two musical options- familiar high energetic-joyful music and unfamiliar low energetic-joyful music. Each type of music consisted of four songs and once they selected one type of music, they listened to all the four songs for eight-minute period. Thus, this study focused more on one time music selection based on current affective states and familiarity of music. It also examined effects of a certain type of music listening on affective states and enjoyment of the music. After eight-minute music listening, participants rated their feelings and the music they listened to.

**Manipulation of affective states**

For the initial sad or happy affects, participants were randomly assigned to watch either sad and serious commercials including a drama clip or happy and humorous commercials by clicking one of two burtons on a computer screen. Video clips for a sad affect included a clip of *Grey’s Anatomy* about a death of a main character’s father, three advertisements about elderly abuse, fatal consequences of a car accident by not using a seat belt, and animal abuse. Happy video clips included a toy commercial describing happy kids and three other advertisements which featured humorous and funny situations and conversations. As an manipulation check of affects induction, the independent t-test revealed that participants in a sad condition felt significantly more sad, less happy, more tense, and less energetic than those in a happy condition (t(103) = 17.62, *p* < 0.0001, MD = 2.92 (*sad*), t(129) = -15.80, *p* < 0.0001, MD = -2.75 (*happy*), t(104) = 7.04, *p* < 0.0001, MD = 1.34 (*tense*), t(115) = -8.81, *p* < 0.0001, MD = -1.67 (*energetic*)). Participants in the sad condition rated the experience of their sad feelings much less favorably (M = 1.66, SE = 0.16) than those in the happy condition (M = 4.33, SE = 0.17/ t(108) = -11.35, *p* < 0.0001, MD = -2.67).

**Pretest of music**

For a pretest to select musical stimuli, 115 undergraduate students listened to 16 contemporary US pop songs for 30 seconds per each song. The songs were selected from the list of Top Hits of the Billboard Hot 100 and other lists and classified as either energetic /happy songs or soft/sad songs based on intuitive grounds. Like the other similar studies, participants evaluated each song on eight 11-point bipolar scales: *fast-slow, hard-soft, cheerful-dreary, aggressive-peaceful, happy-sad, energetic-listless, exciting-relaxing, and sober-emotional*. They also rated the familiarity and likability of each song. Based on their evaluation, four highly energetic-joyful songs and four low energetic-joyful songs with similar degree of familiarity and likability were selected and only high energetic-joyful music were used for the study. The same procedure was employed for selecting unfamiliar music. 48 undergraduate students participated in evaluating 16 contemporary Korean popular songs using the same scales but familiarity and likability of the songs were not measured at this time. Eventually, four highly energetic-joyful songs and four low energetic-joyful songs were obtained and only four low energetic-joyful Korean songs were used for the study.

**Independent measures**

**Affective states before music consumption.** It was expected that viewing sad or happy ads would induce “sad” or “happy” affective state but other affective state, possibly labeled as “tense” or “energetic” affect was also expected to be induced and to be related to sad or happy affect. Thus, four types of affective states, which were labeled as “sad”, “happy”, “tense”, and “energetic” affects were measured as initially different affective states between two affect conditions. Participants rated their current feelings with 19 mood adjective items on 7 point scales ranging from 0 (*not at all*) to 6 (*very much*). Four adjective items such as *sad, gloomy, low-spirited,* and *depressed* (α = 0.90) were used for measuring “sad affect” and another four items such as *happy, pleasant, satisfied, cheerful* (α = 0.95) were used for measuring “happy affect.” “Tense affect” were measured by four items, *stressed, distressed, tense,* and *nervous* (α = 0.88) and “energetic affect” were measured by two items, *exciting* and *vigorous*” (α = 0.79).

**Familiarity.** Two different levels of familiarity of music (high vs. low) were conditioned by providing four US and four Korean contemporary popular songs. Songs from another country like Korea must be unfamiliar to American youth since they would rarely have a chance to listen to them. The rating of familiarity of music between US music listeners and Korean music listeners in the main study confirmed that US music was perceived significantly more familiar than Korean music (t(44) = 17.28, *p* < 0.0001, MD = 4.47, SE = 0.26).

**Dependent measures**

**Music selection.** On a computer screen, participants read an instruction that they could choose either four US pop songs or four Korean pop songs for musical experience. The instruction included titles and genre of songs and the name of each singer. To provide more information about Korean songs, the instruction also suggested titles of several US songs as a similar type of music to the presented Korean music.Participants’ selection of music between highly energetic-joyful US songs and low energetic-joyful Korean songs were automatically recorded in a computer.

**Affective states after music listening.** The same four types of affects – “sad”, “happy”, “tense”, and “energetic” affects were measured as affective states after music consumption using the same items (α = 0.91 (*post- sad affect*), α = 0.87 (*post-happy affect)*, α = 0.87 (*post-tense affect*), and α = 0.62 (*post-energetic affect*)). Participants were asked to check to what extent the presented adjectives described their current feeling accurately on 7-point scales ranging from 0 (*not at all*) to 6 (*very much*).

**Enjoyment of music.** Participants also rated how much the songs which they listened to were *likable, enjoyable, annoying* and *boring* (α = 0.87) on the 7-point scale from 0 (*not at all*) to 6 (*very much*). They also rated how much music listening itself were *likable, enjoyable, annoying,* and *boring* (α = 0.84) using the same scales.

**Involvement of music.** Absorbing feature of music was also measured by four items- *memorable, absorbing, interesting,* and *cognitively involving* (α = 0.73).

**Results**

**Music selection**

A chi-square test was used to compare the music selection of participants in the sad condition to the selection of those in a happy condition to see how sad and happy affective states and familiarity of music would influence music selection. No significant different choice pattern was found between two affective states with two music types. In both groups (sad vs. happy), the familiar/highly energetic-joyful US music was preferred over unfamiliar/low energetic-joyful Korean music. This result did not conform to the result of previous study (Chen, 2006; Chen et al. 2007), where sad people were more attracted to sad music over joyful music. In another music study (Knobloch & Zillmann, 2002), people in a good mood (satisfaction) seemed to listened to low energetic-joyful music longer time over music in an opposite quality. However, happy participants in this study showed the preference for highly energetic-joyful US music over low energetic-joyful Korean music as much as sad participants did. This result suggested that familiarity of music had a stronger impact on music selection than the relationship of sad/happy affective states and arousal and hedonic features of music. Therefore, the result supported H1 but not H2.

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| **Table 1**  **Affective States, Familiarity, and Music Selection** | | | | |
|  | | Music Choice | | Total |
|  | | US POP | Korean POP |
| The Initial Affects | Sad | 49 (76.6%) | 15 (23.4%) | 64 (100.0%) |
| Happy | 46 (68.7%) | 21 (31.3%) | 67 (100.0%) |
| Total | | 95 (72.5%) | 36 (27.5%) | 131 (100.0%) |
| Chi-square tests | | *x*² = 1.027, df = 1, *p* = 0.21 (one-sided), = 0.09 | | |

In order to confirm the influence of the familiarity of music on the music selection, a logistic regression on the musical choice by familiarity of the chosen music was conducted. The result revealed that the familiarity was the strong predictor for selecting Korean music over US music (b = -2.03, SE = 0.49, Wald = 17.29, df = 1, *p* < 0.0001, Nagelkerke = 0.875, Exp(b) = 0.13). The value of Exp(b) indicated that for every added point on the familiarity score of either US music or Korean music, participants are 0.13 times as likely to pick Korean music, which means that they are 7.7 (=13/100) times more likely to select US music than Korean music. The high familiarity of US music and the unfamiliarity of Korea music were the strong predictor for the musical choice.

To see the influence of the initial affective states on the musical choice, the initial four affective states were entered to this model and it resulted in the model as shown in Table 2. Adding the four affects as predictors significantly improved the model while increasing the value of by 10.52 (df = 4, *p* = 0.03). However, the value Nagelkerke R Square increased only 0.044, which means the additional predictors accounted 4.4% of variance in the musical choice. The familiarity of music and the energetic affect were the only significant predictors at α = 0.05. Interestingly, when the familiarity of the music and other affects are controlled, as the one point of energetic affect score increased, participants were 42 times more likely to choose Korean music over the US music. At α = 0.10, tense affect also predicted that the participants were 14 (= 100/7) times more likely to pick US music for every one point added to tense affect score controlling for other predictors. Thus, if music is equally familiar, the more energetic or less tense participants were, the more likely they were to pick Korea music than US music. Unlike the energetic affect, happy participants were less likely to choose Korean music. These results indicated that for the participants in this study, arousal components of affect were more related to the preference for the Korean music rather than hedonic tone of affect even if its influence was very small.

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| --- | --- | --- | --- | --- | --- | --- |
| **Table 2.**  **Slope Coefficients of a Logistic Regression Model on Musical Choice** | | | | | | |
|  | B | SE | Wald | df | *p* | Exp(B) |
| Familiarity | -3.37 | 1.04 | 10.51 | 1 | 0.001 | 0.04 |
| Sadness | 1.48 | 1.03 | 2.06 | 1 | 0.151 | 4.37 |
| Tense | -2.62 | 1.37 | 3.66 | 1 | 0.056 | 0.07 |
| Energetic | 3.75 | 1.63 | 5.29 | 1 | 0.022 | 42.37 |
| Happy | -2.13 | 1.23 | 3.00 | 1 | 0.083 | 0.12 |
| Constant | 11.04 | 4.40 | 6.30 | 1 | 0.012 | 62017.57 |

**Effects of music on affects**

2 (Affects) X 2 (Music Type) x 2 (Time) repeated measure ANOVA analyses on four types of affect were used to examine how the initial affective states and types of music would influence participants’ affects over time, with the initial affects (sad and happy) and music types (familiar/energetic-joyful music and unfamiliar/low energetic-joyful music) as a between-subjects variables and time as a within-subject variable. As mentioned above, initially, participants in a sad condition were significantly more sad, less happy, more tense, and less energetic than those in a happy condition.

**Sadness and happiness.** The analyses on a sad affect and a happy affect revealed a significant time effect (sad affect: F(1, 127) = 66.94, = 0.35, *p* < 0.0001 and happy affect: (F(1, 127) = 37.89, = 0.23, *p* < 0.0001) and significant affect and time interaction effect (sad affect: F(1, 127) = 129.98,= 0.51, *p* < 0.0001 and happy affect: (F(1, 127) = 95.75, = 0.46, *p* < 0.0001). However, neither music type and time interaction effect nor affect, music type and time interaction effect was found for both affects, which indicated that music type did not have a significant impact on the change of these affects.

The Affect X Time interaction effect revealed that after music listening, the sad affect and happy affect of the sad group significantly decreased and increased but the happy group showed the opposite direction of the affect change. After music listening, regardless of music types, sad participants felt much less sad and happier than before and happy participants experienced slight increase of sadness and decrease of their happy affect. The paired t-test on the sad and the happy affect after music listening confirmed that the change of sad and happy affects among participants in the happy condition were small but significant (sad affect: MD = -0.36, t(66) = -2.80, *p* = 0.007 and happy affect: MD = 0.53, t(66) = 3.39, *p* = 0.001). However, the level of sadness of the happy group was still very low and the level of happiness was still high. The 2 (Affect) X 2 (Music Type) two ways ANOVA on the post- sad affect and the post-happy affect showed that there were no significant difference on sad and happy affects between the sad group and the happy group as well as between two music listener groups. At the end of music consumption, regardless of music types, participants’ sadness in two groups reached similarly low level and their happiness level reached similarly high level (see Table 3). Not only highly energetic and joyful US pop music but also low energetic and low joyful Korean music helped participants in the sad group eliminate their initial sad feeling by reducing sadness and increasing happiness. For happy participants, it downed their previous happy states but did not cause them to feel sad.

| **Table 3**  **Change of Sadness and Happiness of Participants as a Function of Listening to Different Music Type** | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Initial Affect | | Music Type | Sad Affect | | | |  | Happy Affect | | | |
| Before | | After | |  | Before | | After | |
| Mean | SE | Mean | SE |  | Mean | SE | Mean | SE |
| US music | Sad (n=49) | | 3.50 | 0.13 | 0.85 | 0.16 |  | 1.20 | 0.14 | 3.37 | 0.18 |
| Happy (n=46) | | 0.33 | 0.14 | 0.73 | 0.16 |  | 4.04 | 0.15 | 3.58 | 0.18 |
| Total (n=95) | | 1.91a | 0.09 | 0.74b | 0.11 |  | 2.62a | 0.10 | 3.47bc | 0.13 |
| Korean music | Sad (n=15) | | 2.87 | 0.24 | 0.63 | 0.28 |  | 1.50 | 0.26 | 3.68 | 0.32 |
| Happy (n=21) | | 0.68\* | 0.20 | 1.15\* | 0.24 |  | 3.96a\* | 0.22 | 3.31b\* | 0.27 |
| Total (n=36) | | 1.77a | 0.16 | 0.95b | 0.18 |  | 2.73a | 0.17 | 3.49bc | 0.21 |
| Sad | Total (n=64) | | 3.18a | 0.16 | 0.80b | 0.16 |  | 1.35a | 0.15 | 3.53bc | 0.18 |
| Happy | Total (n=64) | | 0.50a | 0.90 | 0.89b | 0.14 |  | 4.00a | 0.13 | 3.44bc | 0.16 |
| Note: US pop music indicates familiar/highly energetic and joyful music whereas Korean pop music indicates unfamiliar/low energetic and joyful music. All differences are significant at α = 0.05. \*A paired t-test on the sad and the happy affects of the happy participants who listened to Korean music revealed no significant increase in the sad affect (t(20) = -1.74, *p* = 0.10) and a significant decrease in a happy affect (t(20) = 2.34, *p* = 0.03). | | | | | | | | | | | |

**Tense and energetic affects.** The same analysis on tense affect also resulted in the time main effect (F(1, 127) = 27.47, = 0.18, *p* < 0.0001) and the affect and time interaction effect only (F(1, 127) = 25.29, = 0.17, *p* < 0.0001). Both highly energetic-joyful US music and low energetic-joyful Korean music significantly reduced a tense affect but it was prominent only among sad participants. Music listening did not make any big change of happy participants’ tense affect because they were already in a very low level of tense state. Due to soothing effect of Korean music, the tense affect of Korean music listeners in both affect groups was significantly lower than S music listeners (F(1, 127) = 3.82, *p* = 0.05,) after musical experience.

Similarly, the analysis on energetic affect showed a significant time effect (F(1, 127) = 15.36, = 0.11, *p* < 0.0001) and a significant affect and time interaction effect (F(1,127) = 56.40, = 0.31, *p* < 0.0001), which indicated that listening to both types of music significantly increased the level of energetic affect only among sad participants. However, a significant music type and time interaction effect was also found (F(1, 127) = 8.21, =.07, *p*<.01) and it showed that US pop music increased participants’ energetic level significantly but Korean pop music did not (MTIME1 = 1.56, SE = 0.11 and MTIME2 = 2.47, SE = 0.13 for US music listeners and MTIME1 = 1.59, SE = 0.18 and MTIME2 = 1.70, SE = 0.22 for Korean music listeners).

As results of these interaction effects, at the end of music listening, both sad and happy participants who listened to US music reached the similarly moderate level of energetic state. Korean music listeners in two affect groups also experienced a similar level of energetic feeling but their energetic level was significantly lower than US pop listeners. An analysis of 2 (Affect) X 2 (Music Type) two ways ANOVA on the post-energetic affect confirmed this result by showing a significant music type main effect on the post-energetic affect (F(1, 127) = 8.85, = 0.065, *p* = 0.004). US music listeners experienced a significantly greater energetic state than Korean music listeners. All together, for sad participants, both types of music helped them to reduce their tense arousal level and to increase energetic level. For happy participants, their tense and energetic level did not change much but Korean music lowered their energetic feelings.

| **Table 4**  **Change of Tense and Energetic Affects of Participants as a Function of Listening to Different Music Type** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Tense Arousal | | | |  | Energetic Arousal | | | |
| Initial Affect | Music Type | Before | | After | | Before | | After | |
| Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| US music | Sad (n=49) | 2.12a | 0.15 | 0.91b | 0.14 |  | 0.84a | 0.16 | 2.26b | 0.19 |
| Happy (n=46) | 0.55 | 0.16 | 0.71 | 0.15 |  | 2.28 | 0.16 | 2.38 | 0.19 |
|  | Total (n=95) | 1.34a | 0.11 | 0.81b | 0.10 |  | 1.56a | 0.11 | 2.47b | 0.13 |
| Korean music | Sad (n=15) | 1.47a | 0.28 | 0.25b | 0.26b |  | 0.47a | 0.28 | 1.70b | 0.34 |
| Happy (n=21) | 0.79 | 0.23 | 0.58 | 0.22 |  | 2.71a | 0.24 | 1.69b | 0.29 |
|  | Total (n=36) | 1.13a | 0.18 | 0.42b | 0.17 |  | 1.59 | 0.18 | 1.70 | 0.22 |
| Sad | Total (n=64) | 1.96a |  | 0.75b |  |  | 0.65a | 0.16 | 2.13bc | 0.19 |
| Happy | Total (n=67) | 0.63a |  | 0.67a |  |  | 2.50a | 0.14 | 2.04ad | 0.17 |
| Note: US pop music indicates familiar/highly energetic-joyful music whereas Korean pop music indicates unfamiliar/low energetic-joyful music. All differences are significant at α = 0.05. A paired t-test on tense and energetic affects of the happy participants who listened to Korean music revealed no significant change of the tense affect (t(20) = 1.09, *p* = 0.29) and a significant decrease of the energetic affect (t(20) = 5.21, *p* < 0.0001). | | | | | | | | | | |

**Effects of music on enjoyment & involvement**

2 (Affect) X 2 (Music Type) two ways ANOVAs on enjoyment and involvement of music were conducted.

**Enjoyment.** Except a main music type effect (F(1, 126) = 5.19, = 0.03, *p* = 0.02), there was neither affect effect nor affect and music type interaction effect. The initial mood states did not affect the enjoyment of music but US pop music was perceived as more enjoyable than Korean pop music (M = 4.77, SE = 0.13 for US music and M = 4.20, SE = 0.22). Familiar/high energetic-joyful music seemed to be more enjoyed but both types of music were rated favorably. The correlation coefficients among familiarity of music, four post-affects, and enjoyment of music showed that the post-sad and tense affects were negatively associated to enjoyment of music (*r* = -0.43, *p* < 0.0001 and *r* = -0.39, *p* < 0.0001 respectively) and familiarity of music, the post-happy affect, and the post-energetic were positively related to the enjoyment of music (*r* = 0.32, *p* <0.0001, *r* = 0.65, *p* < 0.0001, and *r* = 0.36, *p* < 0.0001 respectively). Thus, both emotional effects and familiarity were closely related to the enjoyment of music. Since US music was more familiar and it also provided more energetic feelings, participants might perceive US music as more enjoyable than Korean music.

**Involvement.** The analysis of two ways ANOVA on involvement of music found no main effects and no interaction effect. Thus, regardless of the initial affective states, participants showed moderate level of involvement to both US pop and Korean pop music (M = 3.03, SE = 0.12, n = 94 and M = 2.70, SE = 0.20, n = 36 respectively). The familiarity and the level of energy and joyfulness of music did not make any significant difference in listeners’ involvement.

**Discussion**

The initial sad affect and happy affect did not have any significant influence in music selection. Both sad and happy participants preferred to listen to the familiar/highly energetic-joyful music over the unfamiliar/low energetic-joyful music. The familiarity of music seemed to be the most primary concern in selecting music and such concern was strong enough to inhibit the influence of the initial affective states on music selection. Unless the music is familiar, the low energetic-joyful music seemed to attract neither sad nor happy people any more.

The analysis of the logistic regression confirmed this result. Only when the familiarity of the music was controlled, the affective states predicted the music selection[[2]](#footnote-2). Unexpectedly, sad affect did not predict the probability of selecting the low energetic-joyful Korean music even when the familiarity of music was controlled. Instead, only the energetic affect was positively associated to the likelihood of choosing Korean music. This might indicate that participants perceived the Korean music as soothing music for coming down energetically aroused affect rather than sad and depressing music. The provided information about songs–titles and genres might not be enough to make US college students perceive those songs as sad (low joyful) songs. However, the tensely aroused state was negatively associated with the preference for the Korean music. This might be because of the unfamiliarity of music. When feeling distressed or stressed, people could be less likely to try to experience unfamiliar music. The unfamiliar music might be perceived as much less enjoyable or even annoying to listen to by the distressed participants.

Sad individuals’ preference for sad media entertainment has been interpreted as an attempt to seek out enjoyment related to sad or dramatic feature of media content and relevant emotional experiences rather than to regulation affective states in a hedonic term. If the Korean music was not perceived as sad music and expected as less enjoyable to listen to due to its unfamiliarity, there is no reason that sad participants can anticipate enjoyment of sad music. Instead, they could expect the enjoyment that familiar music can provide to them. Then, the sad and distressed participants’ preference for the familiar high energetic-joyful music could be interpreted as seeking for enjoyment rather than seeking for eliminating their sad feelings.

Surprisingly, unlike a previous study (Chen, 2006), in this study, low energetic-joyful music also helped listeners feel less sad, happier, less tense, and more energetic than before, especially for those in a sad condition. They reached the similar level of low sadness and high happiness to those who listened to high energetic-joyful music after the music consumption.

Since those four Korean songs were rated as sad rather than happy, dreary rather than cheerful, slow rather than fast, energetic rather than listless, etc., it was odd that participants who listened to this low energetic-joyful music felt as happy as those who listened to highly energetic-joyful music did. One might think that it is because how the music sound (e.g. *fast-slow, happy-sad, energetic-listless*, etc.) was not related to how listeners feel. However, it has been shown that music with fast tempo and major mode caused happy and pleasant feeling whereas music with slow tempo and minor mode provided sad and unpleasant feeling (Hunter et al., 2008).

The unfamiliarity of the Korean music (or the language in the songs) and the absence of meaning by its lyric might explain this result. Although the association of fast music with happiness and the relationship of low music with sadness might be evident across musical culture and music genre (Hunter et al., 2008; Schellenberg, 2008), the unfamiliarity of the Korean music accompanied by a foreign language could lessen these associations. Those who listened to Korean music were not able to understand what singers were actually telling through their songs[[3]](#footnote-3). Even if the tempo, mode, and melody of the songs might form a calm, soft, and sad mood, with the absence of meaning in the songs, the sadness of the songs might be less emphasized while calm and soft feature of music became more prominent.

In addition, due to the unfamiliar feature of Korea music, the listeners might focus more on unfamiliar melodies and beats or the sound of the foreign language rather than their previous and current affective states. In general, music, especially clam and soft music could provide a mood under which people can think about various things related to their daily life including work, relationships, things to do, daily events, past and future, and also their emotional experiences. Music, lyrics, and relevant thoughts and emotional experiences could guide the listeners to feel certain feelings (e.g. sad feelings by a certain event, a sad music, and the subsequent sad thoughts could create or intensify a sad affect). However, by focusing more on the unfamiliar music itself, these associative effects might be lessened. Also, the Korean music listeners showed a moderate level of involvement in the music, which was not significantly different from US music listeners’ involvement to the music. This involving feature of the music might help Korean music listeners especially in the sad group to forget their previous sad feelings. At the same time, listening time might contribute to returning their sad affective states to the normal level, too since the songs provided little clue to remind them of their previous feelings.

Therefore, while being less likely to relate the emotional sounding of the music to their previous sad feeling, the calm and soft feature of the unfamiliar/low energetic-joyful music might be perceived as pleasant and enjoyable. Such a pleasant evaluation of the music could help the listeners feel happier than before or vice versa – calm and soft melody and tempo of music could generate pleasant feelings to listeners. That could be a possible reason that Korean music listeners experienced significantly lower level of tense and energetic affect than US music listeners. The pleasant feelings obtained from calm and soft music could be related to their enjoyment of the music. Since the listeners of both types of music could experience happy affective states, both group rated the enjoyment favorably. However, enjoyment of US music was significantly higher than that of Korean music. This difference could be due to the more energetic affective state of US music listeners than the other group as well as the different level of familiarity between two music options.

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1. In a neutral mood group, the total time for listening to joyful songs was 230.89 out of 480 seconds. This means that they also spent similar amount of time in listening to low joyful songs. [↑](#footnote-ref-1)
2. When the familiarity was not included as a predictor in the logistic regression model, none of affective states significantly predicted musical choice. [↑](#footnote-ref-2)
3. Many of participants who listened to Korean music wrote that they were wondering what singers were telling about. [↑](#footnote-ref-3)