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경영학 박사학위 논문

How Tragedy Affects Consumer Choice:
The Effects of Tragedy on Meaningful
Consumption

비극적 사건의 노출이 소비자 선택에 미치는 영향:
비극이 의미지향적 소비에 미치는 영향을 중심으로

2018년 2월

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Abstract

How Tragedy Affects Consumer Choice: The Effects of Tragedy on Meaningful Consumption

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This thesis attempted to explore the changes in people's consumption behavior when exposed to traumatic, tragic events. The results indicate that when people experience tragic in-group events directly, meaningful consumption increases more than when there are no tragic events. However, when people are exposed to tragic out-group events indirectly, meaningful consumption was not affected as compared with an absence of tragic events. Moreover, when people are exposed to an in-group tragedy, hedonic consumption decreases more than when the tragic event does not occur, whereas when people are exposed to an out-group tragedy, there was no significant difference in hedonic consumption as compared with the case without tragedy. The

mediation analysis confirmed that this phenomenon was caused by *life reflection*. Additionally, when an out-group tragedy occurs, meaningful consumption increases more than the control condition only when the human factor was included in the tragedy. However, in the case of in-group tragedy, the availability of information related to the victims did not affect meaningful consumption intentions. Finally, by collecting the actual Korean music chart dates (Melon Sound chart) and analyzing the weekly music charts before and after the Sewol ferry disaster of 2014, it was confirmed that the top 10 songs after the tragic event showed slower beats per minute and more profound meaning than before the tragic event.

Keywords: tragedy, traumatic event, group identity, meaningful consumption, hedonic consumption, life reflection, eudaimonic happiness

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TABLE OF CONTENTS

I .INTRODUCTION	1
II. THEORETICAL BACKGROUND	
Tragedy	3
Art literature overview	3
Psychology and psychiatric literature overview	5
The connection between tragedy and meaning	6
Eudaimonic happiness and Hedonic happiness	9
Social identity theory	11
III. HYPOTHESES	15
IV. EXPERIMENTS	
Study 1	17
Method	17
Results	19
Discussion	21
Study 2	22
Method	22
Results	23
Discussion	27
Study 3	28
Method	28
Results	29
Discussion	33

Study 4	34
Method	34
Results	36
Discussion	38
Study 5	39
Method	39
Results	41
Discussion	45
Study 6	46
Method	46
Results	50
Discussion	55
 V. GENERAL DISCUSSION	 56
 REFERENCES	 59
 국문초록	 66
論文抄録	68

FIGURES

[Figure 1] Results from Study 1. Life reflection	20
[Figure 2] Results from Study 1. Search for meaning	20
[Figure 3] Results from Study 2. Life reflection	26
[Figure 4] Results from Study 2. Search for meaning	26
[Figure 5] Results from Study 3. Search for meaning	32
[Figure 6] Results from Study 3. Mediation Model	33
[Figure 7] Results from Study 4. Meaningful consumption intention and hedonic consumption intention	38
[Figure 8] Results from Study 5. Purchase intention	44
[Figure 9] Results from Study 5. Moderated Mediation Model (PROCESS model 8)	44
[Figure 10] Results from Study 6. Changes in BPM over time from 2013 to 2014	52
[Figure 11] Results from Study 6. Changes in BPM over time from 2013 to 2014. Overlapped graph	52
[Figure 12] Results from Study 6. Changes in deep meaning of song lyrics over time from 2013 to 2014	54
[Figure 13] Results from Study 6. Changes in deep meaning of song lyrics over time from 2013 to 2014. Overlapped graph	55

TABLES

[Table 1] Results from Study 6. Regression analysis of the impact of a tragic event, season, and economic index on BPM	51
[Table 2] Results from Study 6. Regression analysis of the impact of a tragic event, season, and economic index on deep meaning of song lyrics	54

I . INTRODUCTION

Tragedy is frequently discussed in religion, art, and everyday life, as well as in academic studies such as psychology, psychiatry, counseling, and communication, whether it be in the East or the West. A tragedy can happen in any country and to anyone regardless of age. And the impact experienced by the individuals exposed to such tragic events, either directly or indirectly, is considerably vast. Despite the significance of this impact, there has been scant market research on the effects of tragic events on consumer behaviors. In this study, the effects on consumers exposed to tragic events and the subsequent changes in consumer behavior are investigated.

First, I predict that when individuals are exposed to a tragedy experienced by people close to them, meaningful consumption would increase more, whereas hedonic consumption would be lower compared to a case with no tragedy experienced. However, when individuals are exposed to a tragedy experienced by distant people, I anticipate that meaningful consumption and hedonic consumption will not be affected. Moreover, these phenomena are expected to occur because of an increase in *life reflection* when comparing the in-group tragedy to the no-in-group tragedy.

If there is a tragedy unrelated to the individuals in the out-group, will there not always be an impact on meaningful consumption? There may be several variables that affect meaningful consumption in the tragedies unrelated to the out-group, but human-related information, the human factor, is expected to be a significant variable in this study. If human-related information, such as the effects of the tragedy on the victims and the people close to them, is provided along with information about the tragedy experienced by

the out-group, meaningful consumption should increase compared to when there is no tragedy. However, in the case of an in-group tragedy, regardless of the presence of human-related information, meaningful consumption would increase compared to when there is no tragedy.

Finally, to confirm whether these phenomena occur in society, actual field data were collected, and the field research was conducted. In this study, the Sewol accident was selected among the main tragic events that have influenced South Korea in recent years. I also collected the top 10 songs of the weekly charts of the Melon Sound Source site, which currently dominates the South-Korean music industry market share. The songs collected range from approximately one year before and one year after the accident to see how the listening trends of the music consumers have changed. In this study, I analyze the SoundSource information using regression analysis with time series data.

II. THEORETICAL BACKGROUND

Tragedy

Art literature overview. Academic research on tragedy has been investigated in various areas. Research on tragedy has focused mainly on the fields of the arts, communications, psychology, and psychiatry. Previous studies related to art originally focused on the concept of tragedy in ancient Greece (ca. 350 B.C.). The tragedy was a genre of popular entertainment during the Classical period of ancient Greece. It was not just during ancient times that the tragedy as a genre was popular. Even in modern times, there are many films with tragic themes that have been successful in the box office worldwide. In the Republic of Korea, as of January 2018, among the 16 Korean films that exceeded 10 million viewers, many of them focused on tragic themes. For instance, *TaeGukGI: The Brotherhood of War* (2004), *Silmido* (2003), *The Royal Jester* (2005), *Miracle in Cell No. 7* (2012), *Ode to My Father* (2014), *Roaring Currents* (2014), and *Train to Busan* (2016).

Recently, there have been studies on the underlying mechanism of why consumers are voluntarily searching for tragic works despite the fact that pain and sorrow are emotions human beings try to avoid (Hanich, Wagner, Shah, & Jacobsen, 2014; Knobloch-Westerwich, Gong, Hagner, & Kerbeykian, 2012; Kooperman, 2015; Mills, 1993; Oliver, 1993). The behavior of those who seek and consume tragic works is known as the *paradox of tragedy*, which contrasts with the existing idea of avoiding tragedy as a universal attribute of human beings (Knobloch-Westerwich, Gong, Hagner, & Kerbeykian, 2012;

Oliver, 2008). The paradox of tragedy suggests that people consume tragic works of art while experiencing grief as well as feeling pleasure. The pleasure of consuming tragic works of art is known as tragedy enjoyment, which is contrary to the conventional thinking in American society that considers the content of entertainment should be mainly focused on enjoyment. In these studies, the authors asserted that consumers not only pursue pleasure and joy but rather desire to receive comfort by comparing themselves with unfortunate characters in tragic works. They also argued that consumers have a desire to ruminate their lives and sort their thoughts while watching the characters' unfortunate lives, even if they are not real characters. In other words, by feeling empathy for the characters and experiencing the feelings and lives of others, people can self-introspect. Kooperman (2015) insisted that the reason why we consume a book or movie that contains tragic content that causes sorrow is because of the desire to find meaning in it and our desire to gain individual inner growth and insight into the world.

Furthermore, some studies show that when people appreciate sad works, their sense of aesthetics increases. For example, the sadness evoked by a movie while watching it maximizes the touching feelings about the movie, which leads to an increase in aesthetic enjoyment through the movie (Hanich, Wagner, Shah, & Jacobsen, 2014). These studies reveal that people consume tragic works not just by feeling empathy, ruminating, pursuing inner growth, and seeking insight into the world but also by getting a greater aesthetic satisfaction and aesthetic beauty.

Psychology and psychiatric literature overview. Previous psychology research has presented tragic events using not only the term tragedy but also suffering or trauma. Examples of traumatic events in life include the death of a loved one, an unexpected illness or disability, or being the victim of crime or war. Traumatic events may or may not include death (Lykins, Segerstrom, Averill, Evans, & Kemeny, 2007). For example, cancer or car accident includes death, but divorce or injury does not include the concept of death. These unwelcomed life events shatter the belief that humans live in a safe and predictable world. Also, it disrupts the sense of worthiness about oneself (Silver, Boon, & Stones, 1983).

The experience of such traumatic events can hurt an individual's existing worldviews and values (Janoff-Bulman, 1999). Individuals experiencing these traumatic events, such as experiences of very stressful life events, may feel depressed and anxious, and this may lead to post-traumatic stress disorder (PTSD). Depending on the nature of the traumatic event, or the nature of the person who has experienced the traumatic event, the degree and the persistence of post-traumatic stress disorder varies.

According to the attribution theory (Rotter, 1966; Weiner, 1992), when the internal locus of control is high, the victim feels that the responsibility for the traumatic event is on his or her own. On the other hand, when the external locus of control is high, the victim thinks that the reason for the traumatic event is not due to oneself but to external factors such as luck or fate. When the external control of the traumatic event was high, people complained of high levels of depression and helplessness. Moreover, it has been found that people with a high external control have less post-traumatic growth (PTG)

that changes positively psychologically as they overcome traumatic events (Nickerson, Aderka, Bryant, & Hofmann, 2013). In other words, the reason and control of the traumatic events are not in oneself, and the more thinking is focused on the external factors such as the fate, nature, or external persons, the more difficult it is to overcome the event. Those who have experienced PTG are interested in human internal purposes rather than material external ones, and satisfy essential human needs related to autonomy, relationship, and ability (Kasser, 2002; Kasser & Ryan, 1996). Not everyone who has suffered a traumatic event has positive psychological growth. However, there seems to be a strong relationship between the trauma event and the psychological growth. Next, we will examine the relationship between tragic events and their meaning based on previous research.

The Connection Between Tragedy and Meaning

Based on previous studies, there seems to be a link between pain and the meaning of life. The first scholarly connection of the pursuit of meaning in tragedy was the study on the Nazi Holocaust survivors (Bettleheim, 1986; Frankl, 1959). In this study, the authors interviewed survivors of the Holocaust and found that the survivors constantly sought to find meaning in the concentration camp. Survivors also said they did something meaningful, such as giving food to a person in a worse condition, even if they did not have something to eat themselves. Those behaviors seemed to provide them with the power to survive. Through these Holocaust Survivor studies, Frankl (1959) found that those who survived trauma events pursued meaning and put into practice that meaning , which implies that

Frankl found the link between tragic events and the search for meaning. In other words, he noticed this phenomenon and found a link between tragic events and meaningful pursuits.

The study of tragedy and finding meaning in it has also been investigated in cultural studies. From ancient times, when tragic events took place, people tried to explain the phenomenon by finding another reason as well as an objective causal relationship. For example, if someone witnessed an illness or an accident, they would think the person was punished (Douglas, 1994; Shweder, Much, Mahapatra, & Park, 1997). This phenomenon is called repressive suffering construal (RSC), which is stronger in a collectivist society where social norms are strong (Sullivan, Landau, Kay, & Rothschild, 2012). RSC refers to the extent to which suffering in life is attributed to violating social norms. In this high RSC culture, when people look at the tragedy or unfortunateness of others, this culture interprets the event as punishment rather than a causal relationship, which shows the phenomenon in which people try to find some negative messages from the tragedy. Therefore, a person who suffers misfortune is blamed by others in high RSC societies.

In contrast, a different tendency has also been found: When a person who believes the world is fair witnesses the tragedy of others, the witness thinks that the lives of those who suffer would be more enjoyable and meaningful than those who have not suffered. However, when a witness believes that the world is unfair, the experience of tragedy does not predict that the lives of the people who suffer would be more enjoyable or meaningful than those who did not suffer (Anderson, Kay, & Fitzsimons, 2010). A significant factor in these tendencies is the difference in system-justification theory (Jost &

Banaji, 1994). For those who believe that the world is just, they think those who have suffered will be rewarded by having a positive outcome in other ways. Therefore, instead of blaming those who have suffered inexplicably, people that believe the world is fair expect that meaning should be added to the lives of those who suffer as a reward. By doing so, they maintain their faith in the fairness of the world. This research also implies that there is a broad relationship between tragedy and meaning in people's thinking processes.

Recent psychological research has found that people tend to seek more meaning in life when they are at a crucial turning point or when they are in critical conditions. For example, when dividing the life cycle of a human, it is often based on a 10-year cycle, known as a decade in English. Even when referring to age, Western conventions use expressions such as the 20s, 30s, and 40s. Thus, completing a 10-year cycle and entering a new 10-year cycle have a special meaning to individuals and are considered to be important periods of life. Therefore, individuals tend to find more meaning at the ages ending in the number nine (e.g., 19, 29, 39, 49, and so on) than other ages (Alter & Hershfield, 2014). Given that a tragic event is an important life event as well, it can be expected that the tendency to seek meaning at this time may be higher than at other periods. Similarly, some researchers have found the reason for consuming tragic artworks in eudaimonic happiness (Koopman, 2015; Oliver & Raney, 2011; Wirth, Hofer, & Schramm, 2012). According to these studies, consumers look for sad novels or movies because they pursue meaningful happiness and seek their life goals and meanings through them.

Eudaimonic Happiness and Hedonic Happiness

In positive psychology, one of the main ways in which happiness is divided is eudaimonic happiness and hedonic happiness. Eudaimonic happiness refers to when people experience the purpose of life and the internal growth of the individuals, they feel satisfaction and happiness. In contrast, hedonic happiness refers to positive emotions. This theory argues that people feel satisfaction and happiness when positive emotions increase and negative emotions decrease, regardless of meaning (Deci & Ryan, 2008; Gruber, Mauss, & Tamir, 2011).

Meaning and pleasure are often introduced as distinct and compensatory concepts. These two concepts have a trade-off nature, and a specific need may be sacrificed to satisfy another one (Kim, Kang, & Choi, 2014). For example, when spending a Friday night, individuals can study to prepare for their own future growth (eudaimonic happiness), or they go out to clubs and play with friends for fun (hedonic happiness).

The study of happiness has been extended to various academic fields, including psychology as well as consumer behavior. The reason why happiness has not been dealt with in marketing research is presumed to be the researchers have not perceived a high correlation between happiness and consumption (Shin et al., 2013).

In this study, according to the criteria used in previous research, dependent variables were divided into two types, eudaimonic consumption and hedonic consumption. Eudaimonic consumption means purchasing goods or services with philosophical qualities that help finding the purpose of life and promote the internal growth of the individuals, even if there is no positive emotion or joy. On the other

hand, hedonic consumption implies purchasing products or services that have a positive emotion, are fun, and produce pleasure even if they do not help with individual growth or finding a life purpose. For example, even though they deal with the same main topic (happiness), eudaimonic lectures can be boring and uninteresting even when they can be useful for learning and helping individuals grow, while hedonic lectures can be very fun and enjoyable to listen to, but they may not help learning or personal growth at all (Kim, Kang, & Choi, 2014).

Social Identity Theory

Social identity means defining oneself with a sense of belonging to a social group. When we belong to a group, we think of the group as similar to ourselves, and we see ourselves as part of the group and as having a group identity (Tajfel & Turner, 2004). People understand themselves not only by introspection as independent individuals but also by confirming themselves in a social group. The theory of social identity reveals that the group to which people belong has a special meaning to the identity of the individual. And once a person sees him or herself as part of a particular group, he or she gains self-esteem through the group's sense of belonging (Ellemers, Spears, & Doosje, 2002).

According to social identity theory, Chen and Li (2009) investigated how people become generous to in-groups and out-groups of social identity theory. Participants in this study showed a 47% higher level of generosity to their in-group members than to out-group members when they played a game. Likewise, participants showed favorable behaviors when playing games with in-group members by compensating 19% higher to them than to out-group members. In other words, participants were more likely to perform social-welfare-maximizing behaviors to the in-group than the out-group. To the same in-group members, people showed more generosity and less punishment, while to the out-group members people did not show the same favor as to the in-group members.

These results can be explained by social identification (Deaux, 1996). According to the concept of identification, the stronger the relationship between a group and its group members, the higher the identification of members who identify themselves with the group.

Therefore, the higher the social identification of the group to which they belong, the stronger the willingness to help the group. The individuals find their psychological origins in the group they belong to. Thus, individuals strive to maintain or enhance positive social identities by belonging to an attractive social group compared to others. They also use various strategies to enhance the attractiveness of their group membership, for example, through competition, trying to increase the objective position of their group in the social structure, or comparing the in-group with other groups on a favorable in-group standard (Tajfel & Turner, 2004).

Recent neuroscience studies have found that differences in attitudes toward in-groups and out-groups makes a difference in other people's suffering. According to neuroscience studies, when the brain is experiencing the pain of others, resonance and perspective taking (the ability to distinguish one's own viewpoint from others' viewpoints and to understand other's thoughts and emotions from the perspective of the person) were more active when witnessing the suffering of in-group members than out-group members. (e.g., Mathur, Harada, Lipke, & Chiao, 2010; Xu, Zuo, Wang, & Han, 2009).

According to a study by Mathur et al. (2010), when participants looked at the painful faces of in-group members, the action of the neural circuit that underlies the emotional component of empathy –the anterior cingulate cortex (ACC) and bilateral anterior insula (AI) –in the participant's brain, as compared to the painful face of the out-group member, increased in both Caucasian and African American participants respectively. It was also found that the activities of the medial prefrontal cortex (MPFC) associated with the ability to understand others' perspectives were also increased in African

American participants. On the contrary, participants are less likely to provide help to out-group members because their empathy for the out-group is lower than that of their in-group (Cikara, Bruneau, & Saxe, 2011; Stürmer, Synder, & Omoto, 2005). Especially when the competitive out-group members are suffering or experiencing misfortune, it has been found that the compensation area of the brain is activated (bilateral ventral striatum), and this phenomenon has been described using the term *schadenfreude*, the pleasure of having misfortune for others (Takahashi, Kato, Matsuura, Mobbs, Suhara, & Okubo 2009). These research findings show that people tend to feel more emotional, empathic, and more inclined to help the suffering of the in-group members than the out-group ones.

This phenomenon also occurs in psychological distance studies (Ross & Wilson, 2002; Van Boven, Kane, McGraw, & Dale, 2010). Increasing psychological distance alleviates negative emotions from threats. Thus, when a tragedy occurs, people feel less threatened when it happens to distant individuals, not close ones (spatial); when it happens to a stranger, not to a friend (social); when it happened in the past, not in the present (temporal); and when it happened in the imagination, not in reality (hypothetical). Likewise, it can be expected that a tragic event in the in-group will make people feel more threatened than seeing tragic events happen to the out-group. This is because people have a different psychological distance between the in-group and the out-group.

In this study, I expected that only tragic events to the in-group would affect the change of meaningful consumption. On the other hand, if tragic events occur to the out-group, it was expected to have no impact on meaningful consumption. It also predicted that even

out-groups, meaningful consumption would increase if there were personal information about the negative impact of the tragedy on the out-group. According to Likins et al. (2007), when thinking about death, just thinking about the physical death itself reduced the pursuit of intrinsic goals related to relationships or inner growth, while in the pursuit of materialistic desire the extrinsic goal increased. However, when people reflected on their lives and death and thought about the people around them, the pursuit of intrinsic goals increased. In this way, it is predicted that the out-group's tragedy does not affect meaningful consumption because people would not imagine the impacts of tragedies on victims and the people around them. Therefore, even in the case of out-group tragedies, I anticipate that meaningful consumption will increase if information is given that can reflect the impact of the tragedies on individuals. However, in the case of in-group tragedies, the presence of information will not affect the meaningful consumption because, naturally, the rumination of the in-group victims will occur even if no information is given about the impact of the tragedies.

III. HYPOTHESES

By integrating the research described above based on the social identity theory, I predicted that people would have more meaningful consumption when a tragic event occurred to the in-group than when there was no tragedy. However, when a tragic event occurred to an out-group, there would be no difference in meaningful consumption compared to when no tragedy occurred. Moreover, I expected that people would have less hedonic consumption when a tragic event occurred to the in-group than when the tragedy did not occur. However, when a tragic event occurred to an out-group, there would be no difference in hedonic consumption compared to when the tragedy did not occur. In other words, when exposed to the tragic in-group events, consumers' meaningful (hedonic) consumption increases (decreases) compared to the case of no tragedy. But when they are exposed to the tragic out-group events, there would be no significant difference in meaningful (hedonic) consumption compared to when the tragedy did not occur.

The underlying mechanism of this phenomenon is expected to be the increase in *life reflection* of the individuals when exposed to the in-group tragedy. Oliver (2008) defined eudaimonia as seeking self-reflection and greater insight. I anticipated that there would be no change in the rumination of an individual's life to the out-group tragedy. In other words, the effects of tragedy on meaningful consumption would be mediated by life reflection.

To strengthen and broaden the understanding of the effects of tragic events on meaningful consumption, I examined the effects of hedonic consumption, which is widely introduced as a complementary concept of meaningful behavior. Therefore, it was expected that when

exposed to tragic in-group events, hedonic consumption would decrease as compared to the case without tragedy. However, when exposed to tragic out-group events, there would be no difference in hedonic consumption compared to the case without tragedy.

Finally, I expect that the human factor, the information about victims and the people around them, will increase the meaningful consumption even when the tragic events occur in the out-group. In the case of the out-group tragedy, it was expected that there would be no change in meaningful consumption when there was no human factor information and only objective information about the tragedy was given. On the other hand, in the case of in-group tragedy, I predicted that meaningful consumption would increase, regardless of whether there is human factor information or not as compared to the condition without tragedy.

The hypotheses were tested in six experiments. Study 1, 2, 3, 4, and 5 tested the hypotheses using a questionnaire. Study 6 aimed to find out whether this phenomenon occurs in the actual market by testing regression analysis using time series data from 2013 to 2014 gathered at the Melon Sound music chart's website, which is the first place in the online music market share in South Korea.

IV. EXPERIMENTS

Study 1

Study 1 was conducted to investigate the main effect of in-group tragic events on search for meaning.

Method

Design and procedure

Study 1 was conducted to participants in European survey site Prolific. A total of 96 participants (36.5% male, 63.5% female), whose native language is English, were randomly assigned to one of two conditions in a 2 (condition: control vs. in-group tragedy) between-participants design. Participants were presented with one of two conditions. They were first asked to read a description of one of two condition and write down their experiences. The description presented to them were as follows:

Control condition: Think about ordinary events that have happened to you recently. Please briefly describe it and write down how you felt (3-5 lines).

In-group tragedy condition: Think about the tragic events that have happened to people close to you recently. Please briefly describe it and write down how you felt (3-5 lines).

After writing down their experiences, the participants provide ratings for to what extent the event is tragic and painful (1 = not at

all, 7 = very much). Moreover, they assessed life reflection using three 7-point scales (“This event made me reflect on my own life and values,” “This event contributed to my personal growth,” and “This event made me think about the purpose of my life”; 1 = not at all, 7 = very much, Knobloch-Westerwick et al., 2012), search for meaning using five 7-point scales (“At this moment, I am thinking more deeply about my life than I usually do,” “At this moment, it feels important to me to understand which aspects of my life have gone well and which ones have gone less well,” “In thinking about my life at this moment, I am taking a very broad view rather than focusing on a few specific moments,” “In thinking about my life at this moment, I am taking a very broad view rather than focusing on a few specific moments,” “At this moment, it is important to me to think about how my life has gone so far,” and “I feel as though this is a turning point in my life when I can choose to fix things that have not gone well and continue to improve on things that have gone well”; 1= not at all, 7 = very much, Alter & Hershfield, 2014), and present meaning in life using one 7-point scale (“To what extent do you feel life is worth living?”; 1 = not at all, 7 = very much). Finally, they were asked about gender and age as demographic items, and the survey was terminated.

Results

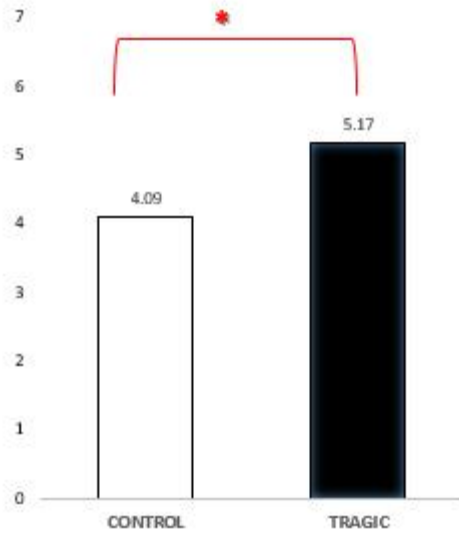
Manipulation check A 2 (condition: control vs. in-group tragedy) analysis of variance on both the extent of tragedy and pain of the event revealed significant main effects. Participants in in-group tragic condition reported that the event was more tragic than those in control condition ($M_{in\ group\ tragic} = 5.76$, $SD_{in\ group\ tragic} = 1.42$ vs. $M_{control} = 1.76$, $SD_{control} = 1.64$; $F(1, 94) = 383.50$, $p = .00$). Also, participants in in-group tragic condition answered that the event was more painful than those in control group ($M_{in\ group\ tragic} = 5.52$, $SD_{in\ group\ tragic} = 1.53$ vs. $M_{control} = 2.02$, $SD_{control} = 1.68$; $F(1, 94) = 293.78$, $p = .00$).

Life reflection A 2 (condition: control vs. in-group tragedy) analysis of variance on life reflection ($\alpha = .82$) revealed a significant main effect. In-group tragic condition showed higher life reflection than the control condition ($M_{in\ group\ tragic} = 5.17$, $SD_{in\ group\ tragic} = 1.31$ vs. $M_{control} = 4.09$, $SD_{control} = 1.76$; $F(1, 94) = 11.44$, $p = .001$).

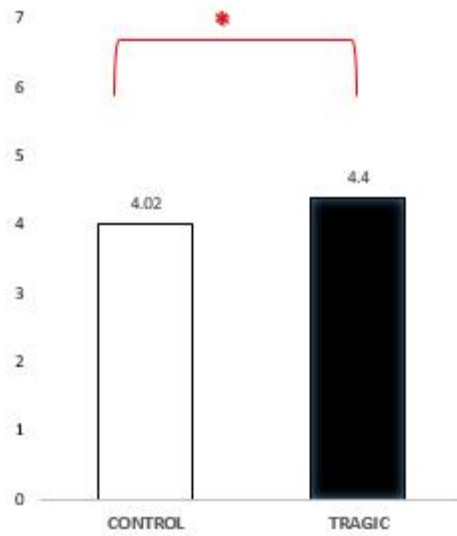
Search for meaning The same 2 (condition: control vs. in-group tragedy) analysis of variance on search for meaning ($\alpha = .87$) revealed a significant main effect. In-group tragic condition reported higher search for meaning than the control condition ($M_{in\ group\ tragic} = 5.03$, $SD_{in\ group\ tragic} = 1.18$ vs. $M_{control} = 4.26$, $SD_{control} = 1.61$; $F(1, 94) = 7.12$, $p < .01$).

Present meaning in life A 2 (condition: control vs. in-group tragedy) analysis of variance on present meaning in life was not significant ($p > .13$).

[Figure 1] Results from Study 1. Life reflection



[Figure 2] Results from Study 1. Search for meaning



Discussion

Study 1 was to investigate whether there is a main effect of in-group tragedy on search for meaning. The results indicate that when the recent tragic accident of the close person was reminded, people reported more life reflection and search for meaning than in the case of not. However, participants did not report that current life is more meaningful when they reminded in-group tragedy. This means that the search for meaning and present meaning of life are different. In other words, if there is a tragic event of a close person, there is a tendency to seek more meaning in life compared to not, but present meaning in life is not affected. In study 1, it was confirmed that people tend to search for meaning when exposed to in-group tragic events compare to control condition. In the next study, I will find out how the search for meaning changes for the tragedy of distant people who are not related to themselves.

Study 2

Study 2 was conducted to investigate the main effect of tragic events on search for meaning moderating the distance between participants and the victims (oneself, in-group, and out-group).

Method

Design and procedure

A 4 (condition: control vs. oneself tragedy vs. in-group tragedy vs. out-group tragedy) between-participants design was used in study 2. One hundred seventy-six Prolific participants (male: 35.8%, female: 54.2%) was randomly assigned to one of four conditions. They were asked to read a description of one of four condition and write down their experiences. The description presented to them were as follows:

Control condition: In the last three months, think about ordinary events that have happened to you. Please briefly describe it and write down how you felt (3-5 lines).

oneself tragedy condition: In the last three months, think about the tragic events that have happened to you. Please briefly describe it and write down how you felt (3-5 lines).

In-group tragedy condition: In the last three months, think about the tragic events that have happened to people very close to you. Please briefly describe it and write down how you felt (3-5 lines).

Out-group tragedy condition: In the last three months, think about the tragic events that have happened to people very far from you. Please briefly describe it and write down how you felt (3–5 lines).

After writing down their experiences, participants responded to the extent of tragedy and pain of the event, life reflection, search for meaning, and present meaning in life used in study 1.

Results

Manipulation check A 4 (condition: control vs. oneself tragedy vs. in-group tragedy vs. out-group tragedy) analysis of variance on the extent of tragedy of the event revealed significant main effects ($M_{control} = 2.07$, $SD_{control} = 1.88$ vs. $M_{ingrouptragedy} = 5.86$, $SD_{ingrouptragedy} = 1.39$ vs. $M_{oneselftragedy} = 5.74$, $SD_{oneselftragedy} = 1.59$ vs. $M_{outgrouptragedy} = 6.27$, $SD_{outgrouptragedy} = .97$; $F(3, 172) = 76.30$, $p = .00$). Control condition reported lower tragic feeling toward the event than in-group tragedy ($t(80.902) = -10.82$), oneself tragedy ($t(84.686) = -9.90$), and out-group tragedy condition ($t(66.169) = -13.25$, $ps = .00$). There was no significant difference between in-group tragedy and oneself tragedy, and between in-group tragedy and out-group tragedy condition ($ps > .20$). Finally, oneself tragedy condition reported marginally higher tragic feeling toward the event than the out-group tragedy condition ($t(69.309) = -1.87$, $p = .07$).¹⁾

Also, a 4 analysis of variance on the extent of pain of the event revealed significant main effects ($M_{control} = 2.24$, $SD_{control} = 2.05$ vs.

1) Levene's test for equality of variance was significant ($F(3, 172) = 5.113$, $p < .005$). Therefore, the assumption of the equality of variance was relaxed for the tests of simple effects.

$M_{ingrouptragedy} = 5.25$, $SD_{ingrouptragedy} = 1.73$ vs. $M_{oneselftragedy} = 5.72$,
 $SD_{oneselftragedy} = 1.72$ vs. $M_{outgrouptragedy} = 4.16$, $SD_{outgrouptragedy} = 1.84$;
 $F(3, 172) = 31.212$, $p = .00$). Control condition reported lower painful
feeling toward the event than in-group tragedy, oneself tragedy, and
out-group tragedy condition ($t(172) = -7.70$, $t(172) = -8.86$, $t(172) =$
 -4.91 , $p = .00$). The out-group tragedy condition reported lower pain
than oneself tragedy and in-group tragedy condition ($t(172) = 3.96$,
 $t(172) = 2.78$, $p < .01$). However, there was no significant difference
between in-group tragedy and oneself tragedy ($t(172) = -1.19$, $p >$
 $.20$).

Life reflection A 4 analysis of variance on life reflection (α
 $= .80$) revealed a significant main effect ($M_{control} = 4.20$, $SD_{control} = 1.90$
vs. $M_{ingrouptragedy} = 5.11$, $SD_{ingrouptragedy} = 1.29$ vs. $M_{oneselftragedy} = 5.20$,
 $SD_{oneselftragedy} = 1.54$ vs. $M_{outgrouptragedy} = 4.37$, $SD_{outgrouptragedy} = 1.45$;
 $F(3, 172) = 4.674$, $p = .004$). Control condition showed lower life
reflection than in-group tragedy ($t(77.722) = -2.66$, $p < .02$) and
oneself tragedy condition ($t(83.788) = -2.72$, $p < .01$). However, there
was no significant difference between control and out-group tragedy
condition ($p > .60$). In-group tragedy condition showed higher life
reflection than the control condition ($t(84.922) = 2.54$, $p < .02$), but not
oneself tragedy condition ($t(81.880) = -.29$, $p > .70$). Finally, oneself
tragedy condition reported higher life reflection than out-group tragedy
condition ($t(84.404) = 2.59$, $p < .02$).²⁾

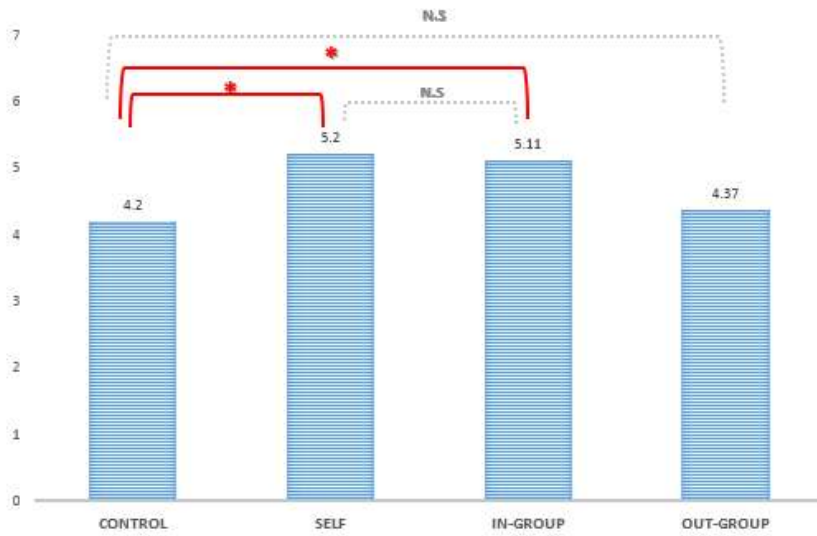
2) Levene's test for equality of variance was significant ($F(3, 172) = 3.302$, $p < .030$).
Therefore, the assumption of the equality of variance was relaxed for the tests of
simple effects.

Search for meaning A 4 analysis of variance on search for meaning ($\alpha = .90$) revealed a significant main effect marginally ($M_{control} = 4.34$, $SD_{control} = 1.75$ vs. $M_{ingrouptragedy} = 5.05$, $SD_{ingrouptragedy} = 1.27$ vs. $M_{oneselftragedy} = 5.00$, $SD_{oneselftragedy} = 1.46$ vs. $M_{outgrouptragedy} = 4.54$, $SD_{outgrouptragedy} = 1.40$; $F(3,172) = 2.45$, $p = .065$). Control condition showed lower search for meaning than in-group tragedy ($t(80.321) = -2.19$, $p < .05$) and oneself tragedy condition ($t(84.405) = -1.93$, $p = .057$). However, there was no significant difference between control and out-group tragedy condition ($p > .50$). In-group tragedy condition showed marginally higher search for meaning than the out-group tragedy condition ($t(85.174) = 1.80$, $p = .075$), but not oneself tragedy condition ($p > .80$). Moreover, there was no significant difference between oneself tragedy condition and out-group tragedy condition ($p > .10$).³⁾

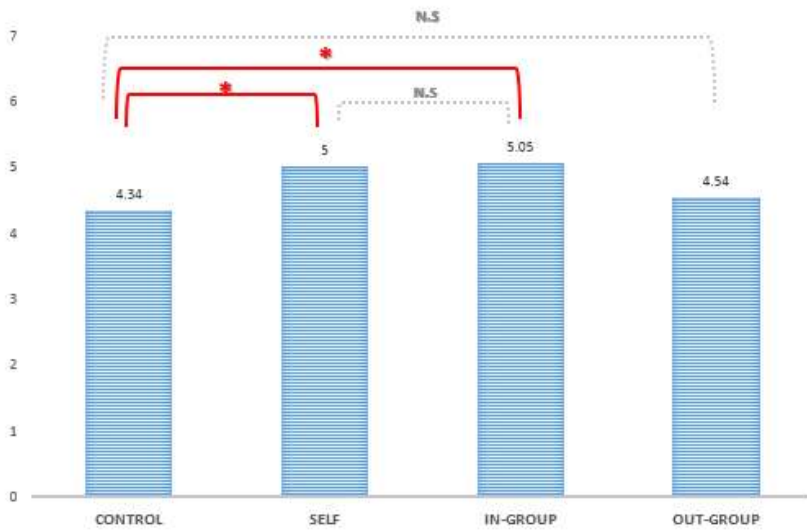
Present meaning in life A 4 analysis of variance on present meaning in life was not significant ($p > .15$).

3) Levene's test for equality of variance was significant ($F(3, 172) = 3.941$, $p < .010$). Therefore, the assumption of the equality of variance was relaxed for the tests of simple effects.

[Figure 3] Results from Study 2. Life reflection



[Figure 4] Results from Study 2. Search for meaning



Discussion

Study 2 investigate how psychological distance of the victim of the tragedy influenced the life reflection and search for meaning. The results showed that both life reflection and search for meaning were significantly higher when the tragic events occur to oneself and in-group people than control condition. There was no significant difference between control and out-group tragedy condition on life reflection and search for meaning. Moreover, it was confirmed that there was no significant difference between oneself and in-group tragedy condition on dependent variables. In other words, if there is tragic events to in-group members, one feels tragic and painful feelings, life reflection, and search for meaning similar to those of themselves. Therefore, from study 3, I assumed that oneself tragedy contained in the in-group tragedy condition. In study 3, I investigated the mediating effect of the tragic event on meaningful consumption.

Study 3

The objective of study 3 was to examine whether the proposed mechanism, life reflection, was the driver of the effect. To rule out alternative mechanism, empathy (Eisenberg et al., 1989) and integrating stressful life event (Holland, Currier, Coleman, & Neimeyer, 2010) were also measured.

Method

Design and procedure

A 3 (condition: control vs. in-group tragedy vs. out-group tragedy) between-participants design was conducted in study 3. One hundred fifteen Prolific participants (male: 27%, female: 73%) was randomly assigned to one of three conditions. They were asked to read a description of one of three condition and write down their experiences. The stimuli presented to them are the same as those used in study 2. After writing down their experiences, they were asked to respond to life reflection, empathy (“moved,” “sympathetic”, “compassionate,” and “softhearted”; 1 = not at all, 7 = very much), integrating stressful life event (the footing in the world subscale: “Since this event, the world seems like a confusing and scary place,” “If or when I talk about this event, I believe people see me differently,” “Since this event, I feel like I’m in a crisis of faith,” “My precious goals and hopes for the future don’t make sense anymore since this event,” “Since this event happened, I don’t know where to go next in my life,” “My beliefs and values are less clear since this event,” “I don’t understand myself anymore since this event,” “Since this event, I have a harder time feeling like I’m part of something

larger than myself,” “This event has made me feel less purposeful,” “I haven’t been able to put the pieces of my life back together since this event,” and “After this event, life seems more random”; the comprehensibility subscale: “I have made sense of this event; reverse coded,” “I have difficulty integrating this event into my understanding about the world,” “This event is incomprehensible to me,” “I am perplexed by what happened,” and “I would have an easier time talking about my life if I left this event out”; 1 = not at all, 7 = very much), and search for meaning.

Results

Life reflection A 3 analysis of variance on life reflection ($\alpha = .80$) revealed a significant main effect ($M_{control} = 3.53$, $SD_{control} = 1.65$ vs. $M_{ingrouptragedy} = 5.37$, $SD_{ingrouptragedy} = 1.20$ vs. $M_{outgrouptragedy} = 4.47$, $SD_{outgrouptragedy} = 1.32$; $F(2, 112) = 15.77$, $p = .00$). Control condition showed lower life reflection than in-group tragedy ($t(69.084) = 5.53$) and out-group tragedy condition ($t(72.770) = -2.81$; $ps < .01$). Moreover, out-group tragedy condition reported lower life reflection than in-group tragedy condition ($t(73.719) = 3.11$, $ps < .01$).⁴⁾

Empathy A 3 analysis of variance on empathy ($\alpha = .93$) revealed a significant main effect ($M_{control} = 3.03$, $SD_{control} = 1.77$ vs. $M_{ingrouptragedy} = 5.69$, $SD_{ingrouptragedy} = 1.62$ vs. $M_{outgrouptragedy} = 5.68$, $SD_{outgrouptragedy} = 1.10$; $F(2, 112) = 39.35$, $p = .00$). Control condition

4) Levene’s test for equality of variance was significant ($F(2, 112) = 3.206$, $p < .050$). Therefore, the assumption of the equality of variance was relaxed for the tests of simple effects.

showed lower empathy than in-group tragedy ($t(71.962) = 6.73$) and out-group tragedy condition ($t(63.133) = -7.97$, $ps = .00$). However, there was no significant difference between in-group and out-group tragedy ($t(58.432) = .03$, $p > .90$).⁵⁾

Integration of stressful life experiences A 3 analysis of variance on the first subscale, the footing in the world ($\alpha = .92$), revealed a significant main effect ($M_{control} = 1.80$, $SD_{control} = .96$ vs. $M_{ingrouptragedy} = 2.68$, $SD_{ingrouptragedy} = 1.19$ vs. $M_{outgrouptragedy} = 2.91$, $SD_{outgrouptragedy} = 1.23$; $F(2, 112) = 10.62$, $p = .00$). Control condition reported lower scores than in-group ($t(112) = 3.37$, $p < .01$) and out-group tragedy condition ($t(112) = -4.40$, $p = .00$). However, there was no significant difference between in-group and out-group tragedy condition ($p > .35$).

The same 3 analysis of variance on the second subscale, the comprehensibility ($\alpha = .82$), revealed a significant main effect as well ($M_{control} = 2.03$, $SD_{control} = 1.00$ vs. $M_{ingrouptragedy} = 3.37$, $SD_{ingrouptragedy} = 1.35$ vs. $M_{outgrouptragedy} = 4.05$, $SD_{outgrouptragedy} = 1.12$; $F(2, 112) = 31.57$, $p = .00$). Control condition reported lower scores than in-group ($t(62.399) = 4.82$) and out-group tragedy condition ($t(77.717) = -8.55$, $ps < .02$). Also, in-group tragedy condition showed higher scores than out-group tragedy condition ($t(66.340) = -2.40$, $p < .02$)⁶⁾

5) Levene's test for equality of variance was significant ($F(2, 112) = 4.268$, $p < .020$). Therefore, the assumption of the equality of variance was relaxed for the tests of simple effects.

6) Levene's test for equality of variance was significant ($F(2, 112) = 3.806$, $p < .030$). Therefore, the assumption of the equality of variance was relaxed for the tests of simple effects.

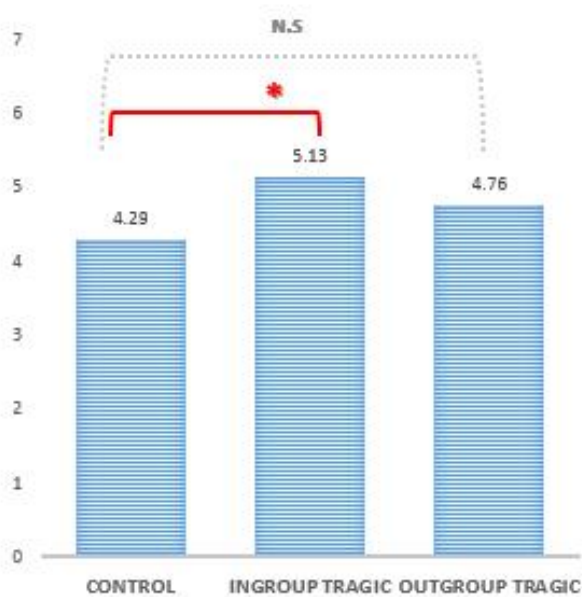
Search for meaning A 3 analysis of variance on search for meaning ($\alpha = .86$) revealed a significant main effect ($M_{control} = 4.29$, $SD_{control} = 1.40$ vs. $M_{ingrouptragedy} = 5.13$, $SD_{ingrouptragedy} = 1.14$ vs. $M_{outgrouptragedy} = 4.76$, $SD_{outgrouptragedy} = 1.19$; $F(2, 112) = 4.12$, $p < .02$). In-group tragedy condition reported higher search for meaning than the control condition ($t(112) = 2.86$, $p < .01$). However, there was no significant difference between the control condition and the out-group tragedy condition ($t(112) = -1.66$), the in-group tragedy condition and the out-group tragedy condition ($t(112) = 1.28$, $ps > .10$).

Mediation Analyses To investigate the underlying mechanism of the effect, multiple mediation analysis with the four potential mediators was conducted using a bootstrapping procedure (PROCESS, Model 4; Preacher, Rucker, & Hayes, 2007). In the first mediator models (1 = in-group tragedy, 0 = control and out-group tragedy), life reflection ($B = 1.36$, $SE = .30$, $t(113) = 4.60$, $p = .00$) and empathy ($B = 1.30$, $SE = .38$, $t(113) = 3.42$, $p < .01$) were predicted by tragedy condition. However, the mediator models with the footing in the world and the comprehensibility were not significant (the footing in the world: $B = .31$, $SE = .25$, $t(113) = 1.27$, $p > .20$; the comprehensibility: $B = .30$, $SE = .29$, $t(113) = 1.04$, $p > .30$).

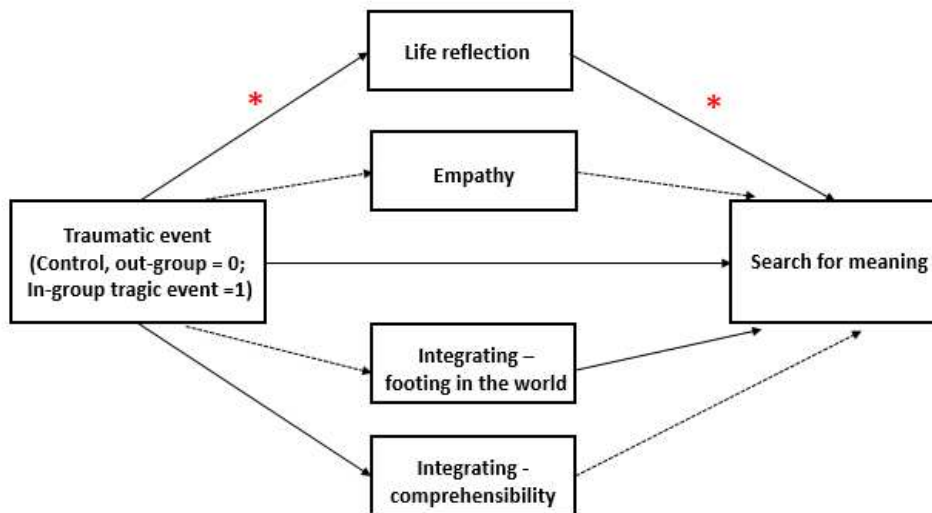
In the dependent variable models with life reflection (M1), empathy (M2), the footing in the world (M3), the comprehensibility (M4), and tragedy condition (X), only the footing in the world predicted search for meaning (life reflection: $B = .40$, $SE = .07$, $t(109) = 5.45$, $p = .00$; empathy: $B = .07$, $SE = .06$, $t(109) = 1.20$, $p > .20$; the footing in the world: $B = .26$, $SE = .11$, $t(109) = 2.27$, $p < .05$; the comprehensibility: $B = -.10$, $SE = .10$, $t(109) = -.99$, $p > .30$; tragedy

condition: $B = -.09$, $SE = .23$, $t(109) = -.41$, $p > .60$). A significant indirect effect was shown only through life reflection (95% CI = [.2950, .8816]), with no other indirect effect of other variables (empathy: 95% CI = [-.0534, .2781]; the footing in the world: 95% CI = [-.0201, .3251]; the comprehensibility: 95% CI = [-.2141, .0224]).

[Figure 5] Results from Study 3. Search for meaning



[Figure 6] Results from Study 3. Mediation Model (PROCESS model 4)



Discussion

In study 3, the psychological underlying mechanism of the effect was investigated. The results indicated that the effects of increasing search for meaning after reminding in-group tragedy was explained only by life reflection. Other factors such as empathy, integrating stressful life event (the footing in the world and the comprehensibility) did not explain the impact of in-group tragedy on search for meaning. In study 4, a product with meaningful contents was used as a stimuli, and a product with hedonic contents was used as a stimuli as well to gain a deeper understanding of the effects of tragic events on consumer behavior.

Study 4

Study 4 complements study 1, 2 , and 3 in two respects. First, in order to examine the effects of tragic events, we tried to increase the applicability of the results by measuring purchase intention of a meaningful product as search for meaning. Second, purchase intention of a hedonic product was also examined to examine the effects of tragic events on consumer behavior. Hedonic orientation is frequently introduced as a complementary concept with meaningful orientation. By looking at the effects of tragedy on hedonic consumption, I will broaden the understanding of the effects of tragedy on consumption.

Method

Design and procedure

A 3 (condition: control vs. in-group tragedy vs. out-group tragedy) × 2(the provided aspect: meaningful vs. hedonic) between-participants design was conducted in study 4. One hundred fifty-six Prolific participants (male: 32.1%, female: 67.9%) was randomly assigned to one of six conditions. Participants were asked to read a description of one of three condition and write down their experiences. The stimuli presented to them are the same as those used in study 2 and e. After writing down their experiences, they were presented with one of two hypothetical decision scenario about purchasing a book (revised from Kim, Kang, & Choi, 2014). The scenario presented to them were as follows:

meaningful condition: Imagine that you pick up a book in a bookstore. As you scan through the book, the content of the book seems very

meaningful in improving your wisdom of life. However, the content of the book does not look so pleasurable because it contains only words and some difficult jargon.

Hedonic condition: Imagine that you pick up a book in a bookstore. As you scan through the book, the content of the book looks so pleasurable because it contains funny episodes of the author and a lot of cartoons. However, the content of the book does not seem so meaningful in improving your wisdom of life.

After being exposed to the scenarios in their assigned group, participants responded to two items to assess purchase intentions on 7-point scales (1 = not at all, 7 = very much): “How likely are you to buy this book?” and “How willing are you to buy this book?”. Next, the extent to want to read the book was measured in one item on 7-point scale (1 = not at all, 7 = very much): “How inclined are you to read this book?”.

Results

Purchase intentions and intention of reading Consistent with the prediction, the results of a 3 (condition: control vs. in-group tragedy vs. out-group tragedy) \times 2 (the provided aspect: meaningful vs. hedonic) analysis of variance on purchase intentions ($\alpha = .95$) revealed a significant two-way interaction effect ($F(2, 150) = 7.66, p < .01$). The main effect of tragedy was not significant ($p > .50$), but the main effect of the provided aspect revealed significant ($M_{\text{meaningful}} = 3.37, SD_{\text{meaningful}} = 1.79$ vs. $M_{\text{hedonic}} = 4.22, SD_{\text{hedonic}} = 3.37$; $F(1, 150) = 9.60, p < .01$).

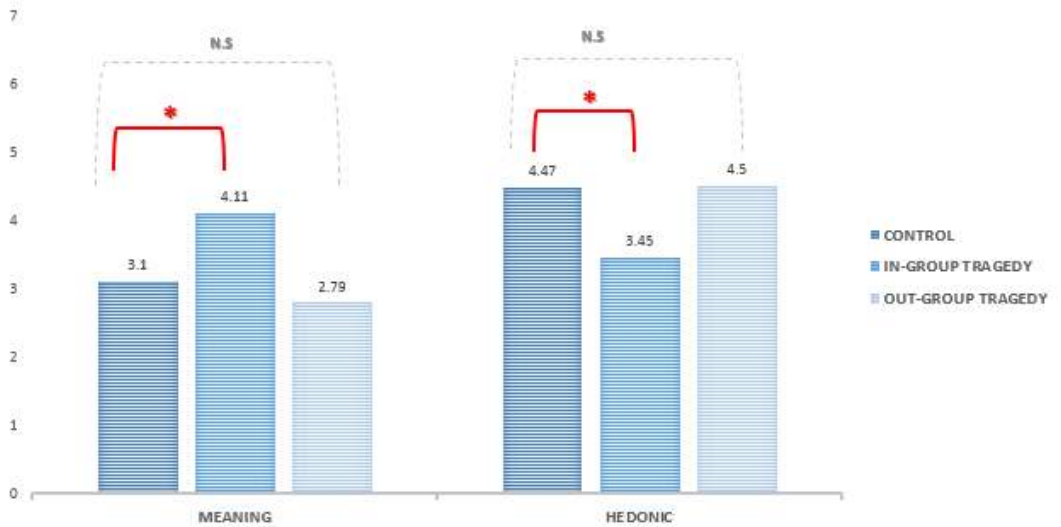
Supporting the hypotheses, following-up planned contrasts showed that in the meaningful consumption domain, in-group tragedy condition ($M_{\text{ingrouptragedy}} = 4.11, SD_{\text{ingrouptragedy}} = 1.62$) reported higher purchase intentions than control ($M_{\text{control}} = 3.10, SD_{\text{control}} = 1.79$; $t(150) = 2.35, p < .03$) and out-group tragedy condition ($M_{\text{outgrouptragedy}} = 2.79, SD_{\text{outgrouptragedy}} = 1.76$; $t(150) = -2.85, p < .01$). However, there was no significant difference emerged in meaningful consumption between control and out-group tragedy condition ($t(150) = -.69, p > .45$). In the hedonic consumption domain, in-group tragedy condition ($M_{\text{ingrouptragedy}} = 3.45, SD_{\text{ingrouptragedy}} = 1.36$) reported lower purchase intentions than control ($M_{\text{control}} = 4.47, SD_{\text{control}} = 1.68$; $t(150) = -2.18, p < .04$) and out-group tragedy condition ($M_{\text{outgrouptragedy}} = 4.50, SD_{\text{outgrouptragedy}} = 1.33$; $t(150) = 2.27, p < .03$). However, there was no significant difference in hedonic consumption between control and out-group tragedy condition ($t(150) = -.69, p > .45$).

Similarly, a 3 \times 2 analysis of variance on intention of reading indicated a significant two-way interaction effect ($F(2, 150) = 5.78, p$

< .01). The main effect of tragedy was not significant ($p > .50$), but the main effect of the provided aspect was significant ($M_{meaningful} = 3.52$, $SD_{meaningful} = 1.97$ vs. $M_{hedonic} = 4.23$, $SD_{hedonic} = 1.59$; $F(1, 150) = 5.80$, $p < .02$).

Planned contrasts indicated that in the meaningful consumption domain, in-group tragedy condition ($M_{ingrouptragedy} = 4.26$, $SD_{ingrouptragedy} = 1.79$) showed higher reading intention than control ($M_{control} = 3.31$, $SD_{control} = 2.00$; $t(150) = 2.04$, $p < .05$) and out-group tragedy condition ($M_{outgrouptragedy} = 2.86$, $SD_{outgrouptragedy} = 1.93$; $t(150) = -2.77$, $p < .01$). However, there was no significant difference emerged in reading intention between control and out-group tragedy condition ($t(150) = -.91$, $p > .35$). In the hedonic consumption domain, in-group tragedy condition ($M_{ingrouptragedy} = 3.55$, $SD_{ingrouptragedy} = 1.43$) showed lower reading intention than control ($M_{control} = 4.55$, $SD_{control} = 1.76$; $t(150) = -1.98$, $p = .05$). However, there was no significant difference in reading intention between in-group tragedy and out-group tragedy condition ($M_{outgrouptragedy} = 4.37$, $SD_{outgrouptragedy} = 1.43$; $t(150) = 1.62$, $p > .10$). Moreover, no significant difference was found between the control and the out-group tragedy condition ($t(150) = -.41$, $p > .60$).

[Figure 7] Results from Study 4. Meaningful consumption intention and hedonic consumption intention



Discussion

The results of study 4 are as follows: In the meaningful consumption domain, people showed higher purchase intention and reading intention when reminding in-group tragedy than the out-group tragedy or no-tragedy. However, in the hedonic consumption domain, people reported lower purchase intention and reading intention when reminding in-group tragedy than the out-group tragedy or no-tragedy.

Study 5

The results of the previous studies 1-4 show that there is a consistent result in the case of the in-group tragedy, meaningful consumption is higher than the case without the tragic event. However in the case of the out-group tragedy, we observed the previous results in which the presence of tragic events did not significantly affect meaningful consumption. Does this mean that meaningful consumption can not change if a tragic event occurs in the out-group? In study 5, I predicted that when a human factor variable were added, meaningful consumption would increase when tragic events occurred to out-group members. Factors related to human were manipulated by presenting personal information about the victim who was directly involved in the tragic event (e.g. interview). In other words, the presence of human factor would not affect the in-group tragedy, but human factor in the out-group tragedy would have a significant effect on the meaningful consumption. Study 5 was conducted by manipulating a newspaper article about the recent earthquake in Pohang and Bali in 2017.

Method

Design and procedure

A 2 (tragedy condition: in-group tragedy vs. out-group tragedy) × 2(human factor: yes vs. no) between-participants design was conducted in study 5. One hundred fifty-eight Korean undergraduate participants (male: 46.8%, female: 53.2%) was randomly assigned to one of six conditions. Participants were asked to read one of four newspapers. Participants read articles related to either the

Pohang earthquake (in-group tragedy) and the Bali earthquake (out-group tragedy) that are occurred in 2017. The contents of the newspaper articles of in-group condition and out-group condition were presented almost the same except the place of the disaster and the name of the disaster announcement organization. In no human factor condition, the cause of the earthquake, the magnitude of the earthquake, and the damage amounts are presented with objective figures and explanations. Condition involving human factor included interviews with people affected by the earthquake in the area, including the cause and magnitude of the earthquake. A control condition was also included in the experiment for comparing each conditions. In a control condition, weather article was given which was not related to tragic events. After that, the description of the meaningful product presented to all conditions was the same as the stimulus of study 4. After that, participants responded to relevance (“This event is relevant to me”; 1= not at all, 7 = very much), life reflection, and purchase intentions. Moreover, in the case of events presented to the conditions of in-group (Pohang earthquake) and out-group (Bali earthquake), the time of occurrence and the character of the disaster are similar, but there are other different aspects such as seriousness and intensity of the disaster. To control this, control variables were measure. First, serious was measured as a single item to determine the seriousness of the disaster: “This event is serious” (1 = not at all, 7 = very much).

Next, participants were asked where they were born, because it is predicted that there would be a difference between Pohang boner and others who were born away from the place of earthquake. The hometown was measured by categorical scale in Seoul and Gyeonggi

area, Gangwon province area, Chungcheongbukdo area, Chungcheongnamdo area, Jeollabukdo area, Jeollanamdo area, Gyeongsangbukdo area, Gyeongsangnamdo area, Jeju area, and foreign countries. Moreover, the number of acquaintances who live the place of earthquake was measured (1= none, 2 = more than 1 but less than 5, 3 = more than 6 but less than 10, 4 = more than 11 but less than 15, 5 = more than 16). Finally, after the gender and age were measured, the study was terminated.

Results

Manipulation check A 2 (tragedy condition) × 2 (human factor) analysis of variance on relevance revealed that the main effect of tragedy condition was significant only ($F(1, 130) = 29.14, p = .00$; $p_s > .50$ for other main effect and two-way interaction). In-group tragedy condition reported higher relevance to the event than the out-group tragedy condition ($M_{ingrouptragedy} = 4.60, SD_{ingrouptragedy} = 1.31$ vs. $M_{outgrouptragedy} = 3.22, SD_{outgrouptragedy} = 1.55$).

Purchase intentions In order to see whether there is a significant difference between control condition and each tragedy conditions, a 3 (tragedy condition: control vs. in-group tragedy with human factor vs. in-group tragedy without human factor) analysis of variance on purchase intentions ($\alpha = .92$) was conducted. The 3 analysis of variance on purchase intentions revealed a significant main effect ($F(2, 86) = 3.55, p < .04$). Both in-group tragedy condition with human factor ($M_{ingroup-human} = 3.30, SD_{ingroup-human} = 1.36; t(86) = -2.38, p < .03$) and no human factor ($M_{ingroup-nohuman} = 3.34, SD_{ingroup-nohuman} =$

1.61; $t(86) = -2.35$, $p < .03$) reported higher purchase intention than control condition ($M_{control} = 2.42$, $SD_{control} = 1.24$). However, there was no significant difference in purchase intention between in-group tragedy with human factor and without human factor ($p > .90$).

Similarly, a 3 (tragedy condition: control vs. out-group tragedy with human factor vs. out-group tragedy without human factor) analysis of variance on purchase intentions revealed a significant main effect ($F(2, 90) = 4.26$, $p < .02$). Planned contrasts revealed that there was no significant difference in purchase intention between the out-group tragedy without human factor and control condition ($M_{outgroup-nohuman} = 2.96$, $SD_{outgroup-nohuman} = 1.36$ vs. $M_{control} = 2.42$, $SD_{control} = 1.24$; $t(46.87) = 1.46$, $p > .10$). However, the out-group tragedy with human factor condition reported higher purchase intention than control condition ($M_{outgroup-human} = 3.55$, $SD_{outgroup-human} = 1.78$; $t(61.90) = 3.06$, $p < .01$).⁷⁾

Next, a 2(tragedy condition) \times 2(human factor) analysis of variance was conducted without including control condition. This analysis included control variables for controlling the different characters of Pohang earthquake and Bali earthquake. Perceived seriousness of the event, the number of acquaintances who live the place of earthquake, hometown, and gender were controlled. A 2 \times 2 analysis of variance on purchase intentions indicated a marginally significant two-way interaction effect ($F(1, 126) = 3.22$, $p = .075$). The main effect of the number of acquaintances was significant only ($F(1, 126) = 10.38$, $p < .01$; $ps > .20$ for other main effect and two-way interaction). Planned contrasts indicated that the out-group tragedy

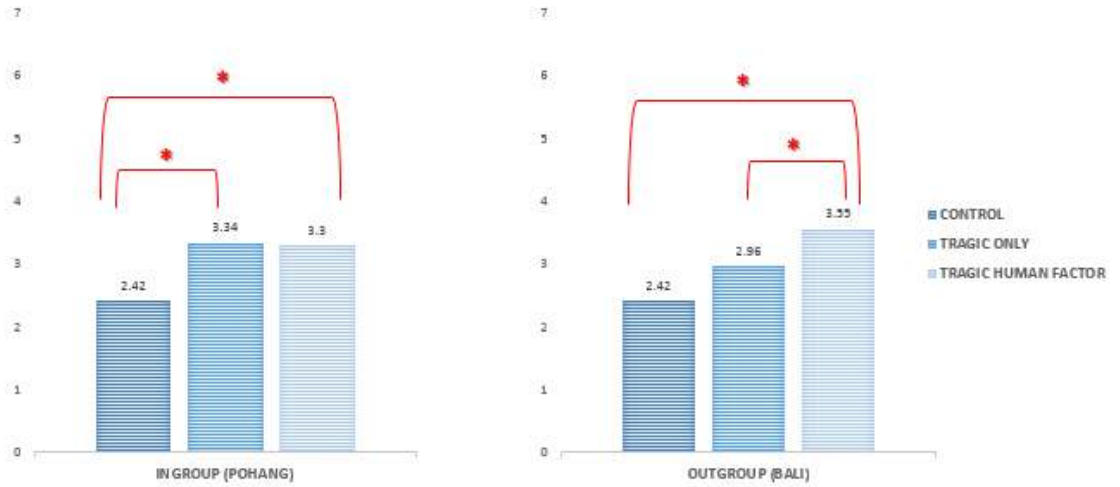
7) Levene's test for equality of variance was significant ($F(2, 90) = 7.720$, $p < .005$). Therefore, the assumption of the equality of variance was relaxed for the tests of simple effects.

with human factor condition reported higher purchase intention for the meaningful product than the out-group tragedy without human factor marginally ($M_{outgroup-human} = 3.75$, $SD_{outgroup-human} = .26$ vs. $M_{outgroup-nohuman} = 2.99$, $SD_{outgroup-nohuman} = .33$; $F(1, 126) = 3.34$, $p = .07$). However, there was no significant difference in purchase intention between the in-group tragedy with human factor condition and the in-group tragedy without human factor condition ($M_{ingroup-human} = 2.85$, $SD_{ingroup-human} = .28$ vs. $M_{ingroup-nohuman} = 3.14$, $SD_{ingroup-nohuman} = .30$; $F(1, 126) = 318.83$, $p > .45$, Figure 1).

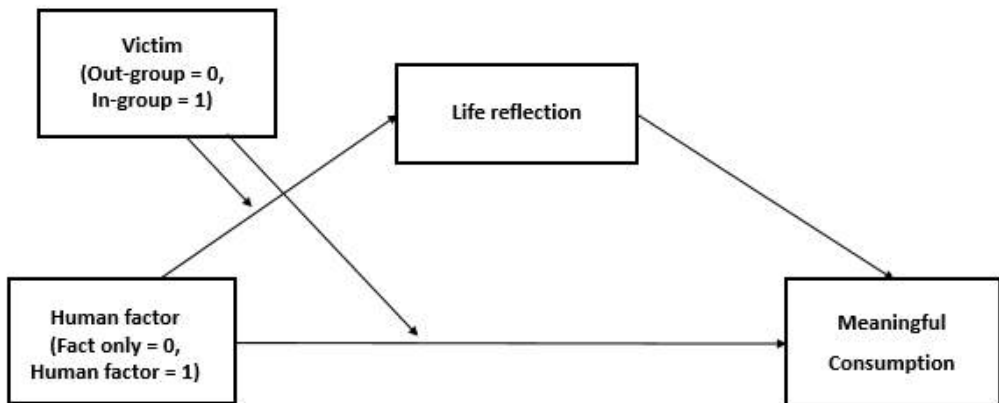
Moderated Mediation Analysis To investigate the underlying mechanism of the effect, moderated mediation analysis was conducted using a bootstrapping procedure (PROCESS, Model 8; Preacher, Rucker, & Hayes, 2007). Human factor (X), tragedy condition (W), life reflection (M), and purchase intention (Y) were included in the model. Moreover, seriousness of the event, the number of acquaintances in the disaster area, hometown. gender were controlled (Figure 2).

In the mediator model, life reflection was predicted by human factor ($B = .80$, $SE = .34$, $t(126) = 2.33$, $p < .03$). In the dependent variable model, purchase intention was predicted by life reflection only ($B = .30$, $SE = .11$, $t(125) = 2.87$, $p < .005$) and other main effects and interaction effect were not significant ($ps > .14$). Moreover, indirect effect via life reflection was significant for the out-group tragedy (95% CI = [.0429, .5968]), but not for in-group tragedy (95% CI = [-.1598, .2877]).

[Figure 8] Results from Study 5. Purchase intention



[Figure 9] Results from Study 5. Moderated Mediation Model (PROCESS model 8)



Discussion

Study 5 revealed that the presences of human factor influenced meaningful consumption changes in the case of out-group tragedy. When people are exposed to the out-group tragic event, including human factor condition reported higher meaningful consumption intention than the control condition, whereas there was no significant difference between no human factor condition and control condition. On the other hand, when people are exposed to the in-group tragic event, both including human factor condition and no human factor condition showed higher meaningful consumption intention than the control condition. A moderated mediation effect was also confirmed in study 5. In study 6, field data will be used to investigate whether meaningful consumption would increase in the real field.

Study 6

Finally, study 6 examined the changes in the form of popular music consumption after a tragic event in South Korea. In this study, I selected the Sewol accident (April 16, 2014) which is thought to have a great impact among the recent national tragedies. By regression analysis of the melon weekly chart data of the year before and the year after the Sewol accident, the time-series data of the melon weekly chart are used to determine whether more meaningful music was consumed than before the accident.

Method

Music chart data collection With the recent development of the internet, online music market has threatened and replaced the existing offline music market. This phenomenon, as well as in South Korea and other countries, began in June 2002, when Apple's iTunes service was downloaded over one billion songs in four years after its launch, replacing the existing offline music market.

Since the online music market provides services to search and use everything related to music, it is leading to long-term growth attracting consumers' attention (Kim & Lee, 2009). Started as a music brand community of mobile communication companies, Melon is the paid music source site which occupies the highest market share of 4.12 million subscribers in South Korea in the first quarter of 2017. Compared to the number of paid subscribers in the second place in the industry is 1.53 million, Melon is a representative of Korean pop music sites. Melon offers subscribers the ability to listen to music anytime, anywhere through a variety of devices, including mobile devices and

PCs. In this thesis, I collected the popular music from the top 10 of the Melon weekly chart from 2013 to 2014, and organized the data by week. During the period from 2013 to 2014, a total of 294 songs were collected from the top 10 on the Melon weekly chart for a total of 14 weeks.

Beats per minutes ratings BPM stands for beats per minutes and refers to the tempo of music, that is, the speed of music. The BPM of each song was measured using Mixmeister BPM analyzer software to see if there were more meaningful music in the top 10 weekly music chart after the tragic event compare to before the accident. The software used to measure the BPM in this study is the same as the software used to analyze the billboard chart music data in the paper by Pettijohn, Eastman, and Richard (2012). In their paper, BPM is used as a variable to show the degree of meaningfulness of Billboard number one pop songs. The authors classify music with highly pleasurable and exciting when the tempo of the song is fast, on the other hand, music with highly meaningful and mature message if the tempo of the song is slow. In this thesis, for example, singer Psy's song *Gentleman* was measured BPM 126 and singer Lee Hyo Ri's *Bad girls* was measured BPM 150.3, while calm ballad *Wildflowers* sung by singer Park Hyo-shin was measured as BPM 92.03.

Music lyrics evaluation In this thesis, I tried to measure the meaningfulness of songs more directly in addition to BPM used Pettijohn, Easterman, and Richard (2012). Among total 294 songs in the top 10 of the melon chart, twenty groups randomly selected 15

songs were created. 284 Korean respondents participated in the survey and randomly were assigned to one of twenty groups to assess the songs. Therefore, one participant rated 15 songs, and the songs assigned to each condition were presented in random order. Participants were presented with every 15 song lyrics assigned to them one by one and evaluated the degree of the deep meaning of the lyrics (1 = not at all, 7 = very much). These scores were weighted averaged according to their rankings, and the degree of deep meaning were collected for each song.

Season and economic index as control variables What I am going to examine in this study is whether tragic events actually affect the trend of music consumption. Therefore, the season and the economic index were measured as extraneous variables to control external environmental factors. Season is a variable that has a great effect on consumer behavior (Niemira, 2005; Parsons, 2001, Park, 1997). Pop music is also one of the markets most affected by the season. In Korea, dance music was bigger than ballad music market in summer and autumn, while ballad music was bigger than dance music market in winter (Lee, 2014). Therefore, in order to control the consumption pattern of the pop music which depends on the season, in study 6, the season is divided into four dummy variables by the Korean seasonal classification of the Korea Meteorological Administration. The season variable was divided into spring (March, April, May), summer (June, July, August), autumn (September, October, November), and winter (December, January, February). Four seasons were dummy variables for season 1, season 2, and season 3 based on spring.

In addition, the Consumer Price Index (CPI), which affected the

pop music market, was included as a economic index. According to the previous research, slow songs are at the top of the Billboard chart when the economy is in recession, while fast songs are at the top when the economy is booming (Pettijohn, Eastman, & Richard, 2012). In this study, since the music data is divided into weeks, the CPI is selected as a variable that can represent the economic index at that time. The CPI is an indicator of price fluctuations of goods and services purchased by consumers, and is an important economic indicator for tracking changes in prices. In republic of Korea, the National Statistical Office of the Economic Planning Board announces the monthly CPI. Therefore, I tried to control the effects of consumption of pop music on the economic index by dividing the CPI into weekly data by listing the same monthly index.

Results

Regression analysis of time series data

In this study, regression analysis was conducted to find out the effects of a tragic event (the 3rd week of April 2014) on BPM, deep meaning, and profundity of pop music. Dummy variable were set by placing 0 before the event and 1 after the event. The season variable was used by generating dummy variables for season 1, season 2, and season 3. In addition, the CPI indicating the economic variables was used in the analysis. Regression models were conducted using seasonal variables and CPI as fixed effects to control the actual external effects using the mixed model. The results are as follows.

(1) BPM

First, the regression model formula is as follows. Here, the dependent variable Y is BPM, which is the tempo of music.

$$Y = b_1 + b_2 * event + b_3 * season1 + b_4 * season2 + b_5 * season3 + b_6 * priceindex + e$$

Regression analysis showed that only before the event and after the event had a significant effect on BPM. When other external effects were controlled, the tempo of the song was slower after the Sewol accident than before the event. The effect of seasonal variables on BPM was not significant, however, the effect of CPI on BPM was significant which is consistent with the results of the previous paper (Pettijohn, Eastman, & Richard, 2012). According to their research, it was revealed that slow songs were popular in economic recession, while fast songs were popular in economic boom. Similarly, the result

of this study showed that the BPM increases as the CPI increases. In addition, in their research, lower BPM is classified as a more meaningful song. Therefore, the result of slower BPM after the event supports the hypothesis that the consumption of meaningful music would increase after the tragic event. The analysis results are summarized in the following table and graphs (see Table 1, Figure 9, and 10).

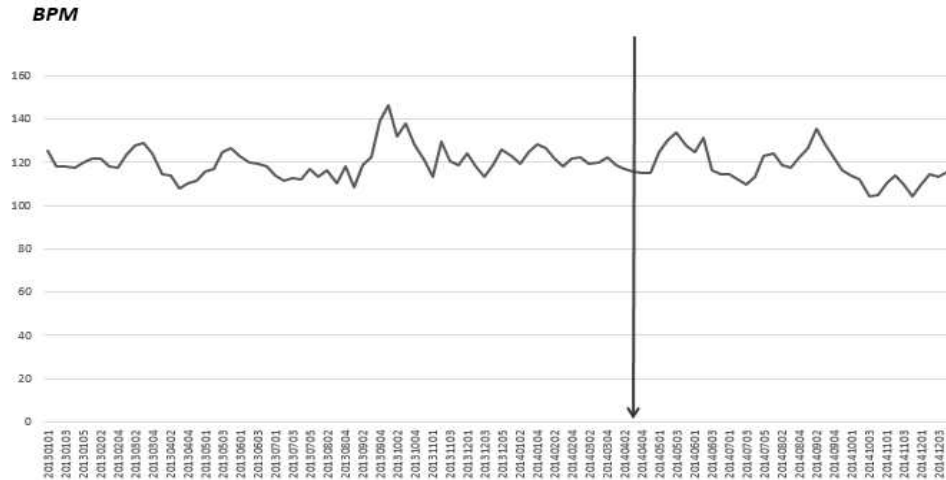
[Table 1] Results from Study 6. Regression analysis of the impact of a tragic event, season, and economic index on BPM

	Estimate	Std. Error	t-value	Pr (> t)
(Intercept)	-232.1398	178.8827	-1.298	0.1974
event dummy	-6.7759	2.6437	-2.563	0.0119 *
season 1	-2.0275	2.0780	-0.976	0.3316
season 2	1.2305	2.0656	0.596	0.5527
season 3	-0.7655	2.0370	-0.376	0.7079
price index	3.5925	1.8196	1.974	0.0512

※ ***p < 0.001, **p < 0.01, *p < 0.05

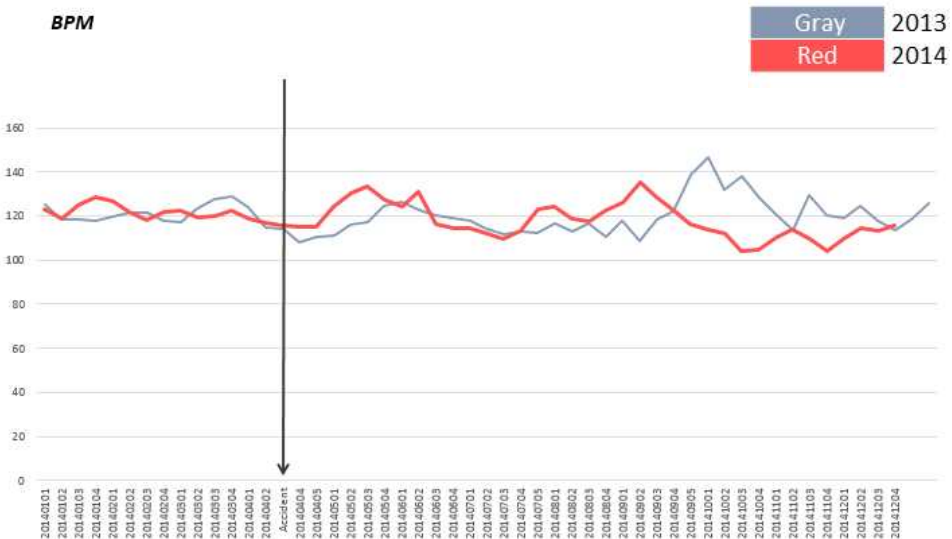
[Figure 10] Results from Study 6. Changes in BPM over time from 2013 to 2014

(arrow: when the tragic event occurred)



[Figure 11] Results from Study 6. Changes in BPM over time from 2013 to 2014. Overlapped graph.

(arrow: when the tragic event occurred)



(2) Deep meaning

The regression model formula is as follows. Here, the dependent variable Y is deep meaning.

$$Y = b_1 + b_2 * \text{event} + b_3 * \text{season1} + b_4 * \text{season2} + b_5 * \text{season3} + b_6 * \text{priceindex} + e$$

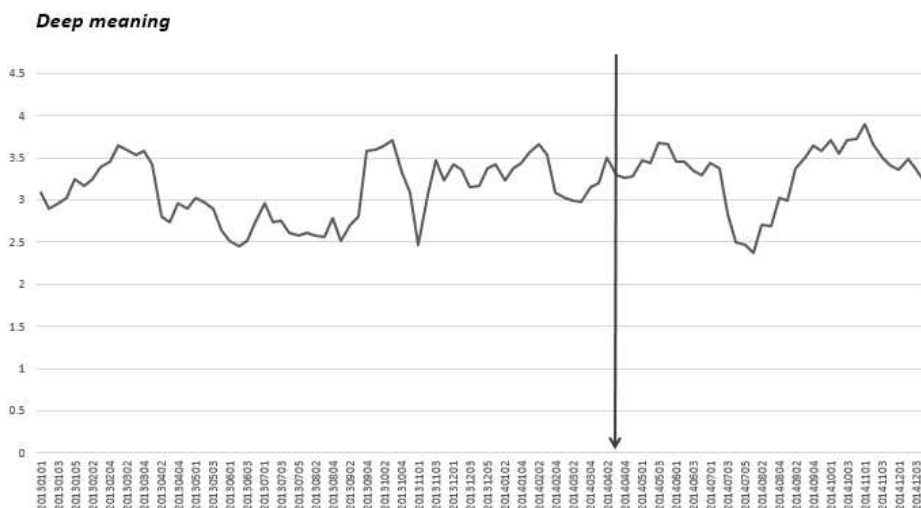
Regression analysis showed that tragic event variable and season 1 dummy variable (spring and summer) had a significant effect on the degree of deep meaning of music lyrics. When other external factors were controlled, it was confirmed that the degree of deep meaning of the lyrics was greater after the Sewol accident than before it. In the case of seasonal variables, only the difference between spring and summer was significant. Compare to spring, deep meaning of music lyrics decreases in summer. This result is consistent with the previous research, in that summer is the season when dance music needs increases (Lee, 2014). Other season dummy variables and CPI did not have any significant effect on the deep meaning. The results of the analysis are summarized in a table and graphs (see Table 2, Figures 11 and 12).

[Table 2] Results from Study 6. Regression analysis of the impact of a tragic event, season, and economic index on deep meaning of song lyrics

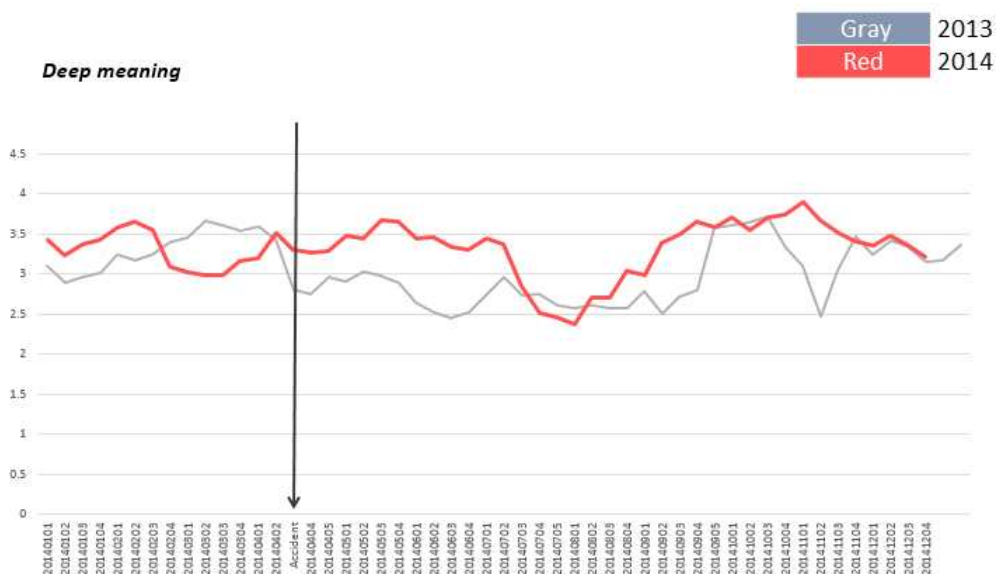
	Estimate	Std. Error	t-value	Pr (> t)
(Intercept)	- 4 . 2 6 3 1 0	7.09766	-0.601	0.5495
event dummy	0.22169	0.10489	2.113	0.0371 *
season 1	- 0 . 4 6 0 1 3	0.08245	-5.581	2.13e-07***
season 2	0.07842	0.08196	0.957	0.3410
season 3	0.11064	0.08082	1.369	0.1742
price index	0.07527	0.07220	1.043	0.2997

* ***p < 0.001, **p < 0.01, *p < 0.05

[Figure 12] Results from Study 6. Changes in deep meaning of song lyrics over time from 2013 to 2014 (arrow: when the tragic event occurred)



[Figure 13] Results from Study 6. Changes in deep meaning of song lyrics over time from 2013 to 2014. Overlapped graph. (arrow: when the tragic event occurred)



Discussion

Study 6 used the actual melon music chart data to test whether consumers' meaningful music consumption actually increases after a tragic event. The results show that after the tragic event, the slower BPM music and the meaningful lyrics of the music are on the top chart than before. In this study, we tried to increase the external validity by using the actual field data. Today, the music market has been shifted to the digital music industry as the traditional offline music industry has fallen around the world. To collect and analyze the digital music data, I attempt to make the hypothesis of this thesis is to be generalized to the actual industry.

V. GENERAL DISCUSSION

The purpose of this thesis is to investigate the effects of the exposure of tragic events on consumers' meaningful consumption. The research results are summarized as follows. The results of study 1 and 2 show that when people are exposed to the in-group tragedy, search for meaning increase as compared to the condition without tragedy. However, there was no change in search for meaning compared to the no-tragic condition. Also, in study 3, life reflection was suggested as an underlying mechanism of the effects. In Study 4, the measurement of the search for meaning is presented as a purchase intention of meaningful product rather than a search for meaning scale. Moreover, hedonic product consumption intention is also added, which is complementary to meaningful consumption. As a result, the purchase intention of the meaningful (hedonic) product was increased (decreased) in the in-group tragedy condition compared to the no tragedy condition. On the other hand, there was no difference in the purchase intention of meaning (hedonic) product in the out-group tragedy condition compared to the no tragedy condition. In study 5, even in the out-group tragedy condition, the purchase intention of the meaningful product increased when the information related to the victims was presented. However, in the in-group tragedy condition, the purchase intention of a meaningful product increased in comparison with the control condition, both when the information related to the victims was presented and when it was not. Finally, in study 6, the actual Melon Sound music ranking data were used to analyze the songs on the charts before and after the Sewol accident. It was found that, after the event, the song lyrics had a more profound meaning

than the previous ones.

The theoretical implications that can be presented through the results of this thesis are as follows. Despite traumatic events being actively studied in other research areas, it has not been done in consumer studies so far. There have been many studies on the effects of external conditions such as economic recession on consumer behaviors (Hill et al., 2012; Pettijohn, Eastman, & Richard, 2012). However, even though tragic events are happening continuously worldwide, many consumer behavior studies have not been conducted yet. This thesis is significant in that it opens a door to investigate how the occurrence or exposure to tragic events could affect various consumption areas in the future. Moreover, this thesis has research implications in that it increases the generalization and external validity of research by collecting and using actual Melon Sound chart data.

Nevertheless, there are limitations in this study. First, when presenting tragic events to experimental participants, they were presented with different tragic events according to the in-group and the out-group condition. To minimize problems that could arise from this, I controlled the related variables that could affect the results. However, in future research, I plan to present the same tragic events by manipulating differently the in-group and the out-group conditions. Further, in this thesis, Melon Sound chart data were collected and analyzed for observing the effect from one tragic social event. In future research, it will be possible to compare the tragic events in diverse societies using longer-term music data. Thus, the generalization of the research results would be strengthened.

In this thesis, I have made a new attempt to present the research topic of tragic events in the field of marketing research. I

hope that this thesis may be of meaningful assistance not only to academic files but also to marketers actively working in the industry.

REFERENCES

김정구, 이지연. (2009). 브랜드 커뮤니티의 지원 서비스가 커뮤니티 강화 요인, 커뮤니티 충성도 및 기업브랜드 충성도에 미치는 영향. *소비자학연구*, 20(4), 187-214.

성영신, 유창조, 이진용, 박은아, 양운재, 정수정. (2013). 소비유형별 소비행복의 비교. *소비자학연구*, 24(2), 1-23.

Alter, A. L., & Hershfield, H. E. (2014). People search for meaning when they approach a new decade in chronological age. *Proceedings of the National Academy of Sciences*, 111(48), 17066-17070.

Anderson, J. E., Kay, A. C., & Fitzsimons, G. M. (2010). In search of the silver lining: The justice motive fosters perceptions of benefits in the later lives of tragedy victims. *Psychological Science*, 21(11), 1599-1604.

Bettelheim, Bruno. *Surviving the holocaust*. Vol. 4178. Fontana Paperbacks, 1986.

Chen, Y., & Li, S. X. (2009). Group identity and social preferences. *The American Economic Review*, 99(1), 431-457.

Cikara, M., Bruneau, E. G., & Saxe, R. R. (2011). Us and them intergroup failures of empathy. *Current Directions in Psychological Science*, 20(3), 149-153.

Deaux, K. (1996). Social identification. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 777-798). New York: Guilford Press.

Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of happiness studies*, 9(1), 1-11.

Douglas, M. (2013). *Risk and blame*. Routledge.

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual review of psychology*, 53(1), 161-186.

Eisenberg, N., Fabes, R. A., Miller, P. A., Fultz, J., Shell, R., Mathy, R. M., & Reno, R. R. (1989). Relation of sympathy and personal distress to prosocial behavior: a multimethod study. *Journal of personality and social psychology*, 57(1), 55-56.

Frankl, V. E. (1985). *Man's search for meaning*. Simon and Schuster.

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.

Han, J. W., Zheng, H. F., Cui, Y., Sun, L. D., Ye, D. Q., Hu, Z., ... & Xie, H. F. (2009). Genome-wide association study in a Chinese

Han population identifies nine new susceptibility loci for systemic lupus erythematosus. *Nature genetics*, 41(11), 1234-1237.

Hanich, J., Wagner, V., Shah, M., Jacobsen, T., & Menninghaus, W. (2014). Why we like to watch sad films. The pleasure of being moved in aesthetic experiences. *Psychology of Aesthetics, Creativity, and the Arts*, 8(2), 130-143.

Hill, S. E., Rodeheffer, C. D., Griskevicius, V., Durante, K., & White, A. E. (2012). Boosting beauty in an economic decline: Mating, spending, and the lipstick effect. *Journal of personality and social psychology*, 103(2), 275.

Holland, J. M., Currier, J. M., Coleman, R. A., & Neimeyer, R. A. (2010). The Integration of Stressful Life Experiences Scale (ISLES): Development and initial validation of a new measure. *International Journal of Stress Management*, 17(4), 325-352.

Janoff-Bulman, R. (1999). Rebuilding shattered assumptions after traumatic life events. *Coping: The psychology of what works*, 305-323.

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British journal of social psychology*, 33(1), 1-27.

Kim, J., Kang, P., & Choi, I. (2014). Pleasure now, meaning later: Temporal dynamics between pleasure and meaning. *Journal of*

Experimental Social Psychology, 55, 262-270.

Knobloch-Westerwick, S., Gong, Y., Hagner, H., & Kerbeykian, L. (2013). Tragedy viewers count their blessings: Feeling low on fiction leads to feeling high on life. *Communication Research*, 40(6), 747-766.

Koopman, E. M. E. (2015). Why do we read sad books? Eudaimonic motives and meta-emotions. *Poetics*, 52, 18-31.

Lykins, E. L., Segerstrom, S. C., Averill, A. J., Evans, D. R., & Kemeny, M. E. (2007). Goal shifts following reminders of mortality: Reconciling posttraumatic growth and terror management theory. *Personality and Social Psychology Bulletin*, 33(8), 1088-1099.

Mathur, V. A., Harada, T., Lipke, T., & Chiao, J. Y. (2010). Neural basis of extraordinary empathy and altruistic motivation. *Neuroimage*, 51(4), 1468-1475.

Mills, J. (1993). The appeal of tragedy: An attitude interpretation. *Basic and Applied Social Psychology*, 14(3), 255-271.

Nickerson, A., Aderka, I. M., Bryant, R. A., & Hofmann, S. G. (2013). The role of attribution of trauma responsibility in posttraumatic stress disorder following motor vehicle accidents. *Depression and anxiety*, 30(5), 483-488.

Oliver, M. B. (1993). Exploring the paradox of the enjoyment of sad films. *Human Communication Research*, 19(3), 315-342.

Oliver, M. B. (2008). Tender affective states as predictors of entertainment preference. *Journal of Communication*, 58(1), 40-61.

Pettijohn, T. F., Eastman, J. T., & Richard, K. G. (2012). And the beat goes on: popular Billboard song beats per minute and key signatures vary with social and economic conditions. *Current Psychology*, 31(3), 313-317.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185-227.

Ross, M., & Wilson, A. E. (2002). It feels like yesterday: self-esteem, valence of personal past experiences, and judgments of subjective distance. *Journal of personality and social psychology*, 82(5), 792-803.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied*, 80(1), 1-28.

Shweder, R., Much, N., Mahapatra, M., & Park, L. (1997). Divinity and the "big three" explanations of suffering. *Morality and health*, 119, 119-169.

Silver, R. L., Boon, C., & Stones, M. H. (1983). Searching for meaning in misfortune: Making sense of incest. *Journal of Social*

Issues, 39(2), 81-101.

Stürmer, S., Snyder, M., & Omoto, A. M. (2005). Prosocial emotions and helping: the moderating role of group membership. *Journal of personality and social psychology*, 88(3), 532-546.

Sullivan, D., Landau, M. J., Kay, A. C., & Rothschild, Z. K. (2012). Collectivism and the meaning of suffering. *Journal of personality and social psychology*, 103(6), 1023-1039.

Takahashi, H., Kato, M., Matsuura, M., Mobbs, D., Suhara, T., & Okubo, Y. (2009). When your gain is my pain and your pain is my gain: neural correlates of envy and schadenfreude. *Science*, 323(5916), 937-939.

Tajfel, H., & Turner, J. C. (2004). The Social Identity Theory of Intergroup Behavior. In J. T. Jost & J. Sidanius (Eds.), *Key readings in Social Psychology. Political Psychology: Key readings*, 276-293. New York: Psychology Press.

Takahashi, H., Kato, M., Matsuura, M., Mobbs, D., Suhara, T., & Okubo, Y. (2009). When your gain is my pain and your pain is my gain: neural correlates of envy and schadenfreude. *Science*, 323(5916), 937-939.

Tamborini, R., Bowman, N. D., Eden, A., Grizzard, M., & Organ, A. (2010). Defining media enjoyment as the satisfaction of intrinsic needs. *Journal of communication*, 60(4), 758-777.

Van Boven, L., Kane, J., McGraw, A. P., & Dale, J. (2010). Feeling close: emotional intensity reduces perceived psychological distance. *Journal of personality and social psychology*, 98(6), 872–885.

Weiner, B. (1992). *Human motivation: Metaphors, theories, and research*. Sage.

Wirth, W., Hofer, M., & Schramm, H. (2012). Beyond pleasure: Exploring the eudaimonic entertainment experience. *Human Communication Research*, 38(4), 406–428.

Xu, X., Zuo, X., Wang, X., & Han, S. (2009). Do you feel my pain? Racial group membership modulates empathic neural responses. *Journal of Neuroscience*, 29(26), 8525–8529.

Zhang, G. P. (2003). Time series forecasting using a hybrid ARIMA and neural network model. *Neurocomputing*, 50, 159–175.

국문초록

비극적 사건의 노출이 소비자
선택에 미치는 영향: 비극이
의미지향적 소비에 미치는 영향을
중심으로

이서진

경영학과 경영학 전공

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본 연구는 비극적 사건(traumatic event)에 노출되었을 때 사람들의 소비행동의 변화에 대해 탐구하고자 하였다. 본 연구에서는 본인과 가까운 내집단(in-group)이 비극을 당한 경우, 비극이 발생하지 않은 경우에 비하여 의미지향적 상품에 대한 소비가 더 증가하는 반면, 본인과 관계가 없는 외집단(out-group)이 비극을 당한 경우, 비극이 없는 경우와 비교하여 의미지향적 상품에 대한 소비는 영향을 받지 않을 것이라고 예측하였다. 실험 결과, 내집단의 비극에 노출된 경우 통제집단과 비교하여 의미지향적 소비는 증가한 반면, 외집단의 비극에 노출된 경우 통제집단과 비교하여 의미지향적 소비에는 유의미한 차이가 없었다. 반면 내집단의 비극에 노출된 경우 통제집단과 비교하여 쾌락주의적 소비는 감소하였지만, 외집단의 비극에 노출된 경우 통제집단과 비교하여 쾌락주의적 소비 변화 역시 차이가 없었다.

매개분석 결과, 이러한 현상은 본인과 가까운 내집단의 비극에 노출된

경우 그렇지 않은 경우에 비하여 자신의 삶에 대한 반추(life reflection)가 증가하기 때문인 것으로 확인되었다. 비극을 당한 집단이 외집단인 경우, 비극적 사건에 노출될 때 사람과 관련된 정보(human factor)가 포함되는 경우에는 통제조건과 비교하여 의미지향적 소비가 증가하였다. 그러나 내 집단의 경우에는 사람과 관련된 정보의 유무가 의미지향적 소비에 영향을 미치지 않았다.

마지막으로 실제 멜론음원데이터를 수집하여 세월호 사건 이전과 이후의 음원차트를 시계열 데이터로 회귀분석한 결과, 비극적 사건 이후의 멜론주간차트 상위 10위 음악들은 사건 이전의 음악들과 비교하여 음악의 속도는 더 느려지고, 더 깊은 의미를 내포하고 있는 것으로 나타났다.

주요어: 비극적 사건, 트라우마, 사회정체성이론, 의미지향적 소비 (meaningful consumption), 쾌락적 소비(hedonic consumption), 삶의 반추 (life reflection), 의미지향적 행복(eudaimonic happiness)

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論文抄録

How Tragedy Affects Consumer Choice: The Effects of Tragedy on Meaningful Consumption

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本研究はトラウマとなりうる悲劇的な出来事に暴露された時、人々の消費行動がどのように変化するか調べる事を目的とした。本研究では本人と近い内集団が悲劇的な出来事に暴露された場合は、暴露されない場合に比べ、意味志向的商品に対する消費が増加する一方で、本人と関係がない外集団が悲劇的な出来事に暴露された場合は、暴露されない場合と比較して意味志向的商品に対する消費は影響を受けないだろうと予測した。

実験の結果、内集団が悲劇的な出来事に暴露された場合、コントロール郡と比較して意味志向的消費は増えた反面、外集団が悲劇的な出来事に暴露された場合、コントロール郡と比べ意味志向的消費には有意な差はなかった。これとは逆に内集団が悲劇的な出来事に暴露された場合、コントロール郡と

比較すると快樂主義的な消費は減少したが、外集団が悲劇的な出来事に暴露された場合、コントロール群に比べ快樂主義的な消費の変化の差がなかった。媒介分析の結果、これらの事象は、内集団が悲劇的な出来事に暴露された場合は外集団の悲劇的な出来事への暴露に比べ、ライフリフレクションが増加するためであることが確認された。

さらに、外集団で悲劇的な出来事が起こる時、その悲劇に人的要因(human factor)が含まれる場合でのみ、コントロール群よりも意味志向的消費が増加した。しかしながら、内集団においては人的な情報の有無は意味志向的消費に影響を及ぼさないことが分かった。

最後に実際にメロン音源データを収集し、セウォル号事件において事件以前と事件以後の音源チャートを分析した結果、悲劇的な事件以降のメロン週間チャート上位10位の楽曲は、事件以前の楽曲と比べ、より遅いテンポで、より深い内容を盛り込んでいることが分かった。

keywords: 悲劇的な出来事, 内集団, 外集団, 意味志向的商品, ライフリフレクション

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