The Effect of Self-esteem in Relation to Death Thought Accessibility and Mood

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Abstract

The goal of this study was to determine if a person's self-esteem or having their worldviews challenged influenced their Death Thought Accessibility (DTA) and mood. DTA is thinking more about death after becoming aware of it. After completing a series of worldview questions, participants (n=112) were categorized with low or high self-esteem and then watched a slide show consisting of either mixed-race or same-race couples. Following the slide show, data was collected when participants were given a word completion task to measure DTA and a questionnaire to measure mood. Results showed that those with low self-esteem had a worse mood than those with high self-esteem (p=.01), but there was no statistical significance between the picture condition in relation to DTA (p=.09) or mood (p=.62). There was also no significance among self-esteem and DTA (p=.928). This study can help us understand the importance of high self-esteem.

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Everyone knows that death is inevitable and realizing that fact can cause feelings of terror. When someone is aware that death is an inevitable aspect of life, it is said that they are mortality salient. This is also known as creating Death Thought Accessibility (DTA), which means that the person is thinking more about death after becoming salient. DTA is related to self-esteem since it is believed that those who have a high self-esteem will not be as susceptible to DTA since they are more confident about themselves. Also out-group discrimination relates to DTA since people discriminate against those that have different beliefs and values as theirs especially after they become mortality salient. It is important that mortality salience is studied in relation to self-esteem and out-group discrimination since there are several real world implications that can be taken from the research. It could help to explain why people usually choose to be around those who are more like themselves. Also, it could give insight on how people view and think about death.

There have been many studies that have looked at the connections between DTA and several other variables. One study that has researched the effects of DTA and self-esteem was done by Hayes, Schimel, Faucher, and Williams (2008). In their experiment, participants took an IQ test and were given feedback if they were above average, below average, or were given no feedback at all. Then they were tested on DTA by a lexical decision task. The results indicated that those who had a threat against their self-esteem, those who were told they had below average IQ, had a higher level of DTA. Those who were told they had an above average IQ or had no feedback at all were about equal in their DTA scores. This finding supports the hypothesis that those with lower self-esteem will have a higher amount of DTA.

Another study that looked at the relationship between DTA and discrimination among in-group and out-groups was done by Greenburg et al. (1990). This study was designed to see if two

different religious groups (Christians and Jews) had negative first impressions of each other. Some of them were made mortality salient first, while others were not. It was found that mortality salience did increase the ratings of those who were Christian, but it did not decrease the ratings of those that were Jewish. This showed that those who were a part of the in-group were more positively viewed than those who were a part of the out-group that shared a different set of beliefs. When looking at the relation to DTA, this study shows that discrimination increased the amount of it in participants.

Along with looking at mortality salience and discrimination, the Greenburg et al. (1990) study also looked at the relationship between mortality salience and mood. They found that those who were mortality salient had more feelings of being frustrated than those who were in the control condition. This shows that mortality salience caused the participants to have a worse mood.

Although that experiment suggested that becoming mortality salient caused a worse mood, another experiment conducted by Schimel, Hayes, Williams, and Jahrig (2007) suggested otherwise. They set up an experiment to see if DTA was higher when people's beliefs and values were threatened. Canadians viewed either an anti-Canadian article or an anti-Australian article and then given a filler task to measure DTA. They found similar results to the Greenburg et. al experiment that DTA was higher when their beliefs were being challenged or threatened, but to make sure that this was not due to mood, the participants completed a mood questionnaire immediately after they read the article. What they found was no significant change in mood right afterwards.

The purpose of our experiment was to see if we could find a relationship between DTA, mood, discrimination, and self-esteem. To find this out, we put together a computer program that

tested the participant's self-esteem and manipulated worldview challenge, and then measured DTA and mood. We predicted that (1) high self-esteem would lead to less DTA, (2) high self-esteem would lead to a better mood, (3) participants with the mixed race condition would have more DTA, and (4) those in the mixed race condition would have a worse mood.

Method

Participants

For this experiment, participants were recruited from a psychology research methods lab course at Purdue University. This course is specifically for psychology majors and most participants were college aged. The motivation for these students to participate in the study was to help them complete a course assignment. Overall there were 112 participants with 37 males and 75 females. The majority of participants, 80.4%, were Caucasian. Asians, which made up 7.1% of the participants, were the next largest demographic. Blacks and South Asians/Indians both made up 3.6%. The remaining percentage consisted of Bi-racial, Latino/Hispanic, and Middle Eastern participants.

Apparatus

Participants performed the experiment on a Dell GX260 computer with a 17 inch flat panel LCD monitor (model E171FP) that ran Windows XP. To run the experiment, Jarvis's software called MediaLab (2000) was used. For the experiment, there was a self-esteem questionnaire using the 10-item Rosenberg Self-Esteem Scale (RSES; Rosenberg 1965). The scale ranged from 1 (strongly disagree) to 7 (strongly agree). The stimuli used were 15 photographs presented twice for 5 seconds in random serial order. Those who viewed the same race photographs were shown 4 White couples, 4 Black, 4 Asian, and 3 South Asian/Indian couples. The other participants who viewed the mixed race photographs were shown 4 Black-

White couples, 4 White-Asian, 4 Black-Asian, and 3 White-South Asian/Indian couples. Later in the experiment there was a mood questionnaire with 20 items using the positive and negative affect schedule (PANAS; Watson, Clark, & Tellegan 1988). It used the same scale as the RSES.

Design and Procedure

For this experiment, a 2 by 2 factorial and between subjects design was used. The two independent variables for this experiment were self-esteem and the picture condition of couples each participant received. Self-esteem was determined by a questionnaire and had two levels, high and low self-esteem, that were decided by a median split at a score of 5.85 based on self reported rankings to the 10 questions. The other independent variable also had two levels, which were same-race and mixed-race couples. Same-race couples were those who were of the same ethnicity, while those in a mixed-race couple belonged to a different ethnicity than their significant other. The dependant variables were death-thought accessibility (DTA) and mood. DTA was measured by what words were formed during the filler word completion task, and the participants' mood was measured by a questionnaire.

The experiment took place in a psychology research methods lab on the participants' given day and time of the class. The whole group was told that they would be doing an experiment in groups of about 6 in another area of the same building. While those 6 participants were completing the study, the others worked on a different task to keep them from discussing the experiment with each other. Those that were ready to start the experiment went into a different area where there were 6 Dell computers set up each in their own separate rooms. Each room had a door with a window on it. The experimenter told the participants to read the directions on the computer program and if they had any more questions to come out of their chosen rooms and ask. Also they were told that all answers would be anonymous. Once the

participants sat down at their computer and read their directions, the experiment started. The first task in the experiment to be completed was the self-esteem questionnaire to determine if the subject had low or high self-esteem. It was measured on the RSES with a range of 1 (strongly disagree) to 7 (strongly agree). After the self-esteem questionnaire, participants watched a slide show that either consisted of same-race or mixed-race couples. Before the slide show started, participants were led to believe that they were to memorize the pictures for a memory task to later pick out which pictures were really shown; however, in actuality, this was our manipulation of challenging the participant's worldview. After watching the 15 pictures twice in the slide show, participants completed a filler word completion task, which was a measure of DTA. There were a total of 20 words, and everyone had the same ones. Six of the words were fragments of death words from Greenburg, Pyszczynski, Solomon, Simon, and Breus (1994). These 6 words were grave, coffin, killed, dead, skull, and stiff. The remaining 14 words were filler words and not related to death. All 20 words were intermixed. Participants either formed death words or non-death related words. For example, participants would see COFF_ _. Those who formed death words would proceed to spell coffin, while those who formed non-death words would spell a word like coffee. In the last section of the experiment, participants completed a mood questionnaire (PANAS) to determine the mood of the participant. There were 10 questions for positive effect (feeling enthused, excited, and proud) and another 10 questions associated with negative effect (feeling hostile and irritable). It was measured on a PANAS on a scale of 1 (strongly disagree) to 7 (strongly agree). Before participants fully finished the experiment, there was a manipulation check to ensure the results were not compromised. The total experiment lasted 10-15 minutes for each participant.

Results

A 2 by 2 analysis of variance (ANOVA) was used to analyze the effects of the independent variables self-esteem and the picture condition of the couples in the slide show on the dependant variables DTA and mood. It was decided before the experiment that the level of significance to be used would be $p<.05$.

Those that had the picture condition with same race couples (M=1.24 words, SD=0.769) had a slightly higher DTA than those who viewed mixed race couples (M=1.00, SD=0.681). Although there was this slight difference, it was not significant, F (1, 108) =2.914, p=.09. While looking at the picture conditions in relation to mood, same race (M=1.20, SD=0.274), was reported as having nearly the same negative affect as the mixed race condition (M=1.24, SD=0.322), F (1, 108) =0.253, p=0.62.

When we looked at the data of DTA and self-esteem it was found that those who had low self-esteem (M=1.11, SD=0.755), had about the same amount of DTA as those who had high self-esteem (M=1.13, SD=0.715), with no statistically significant difference among the groups, F (1, 108) = 0.008, p=0.928. When looking at mood and self-esteem however, we did find that the difference was significant, F (1,108) =9.705, p=0.01. As shown in figure 1 and table 1, those with low self-esteem (M=1.31, SD=0.356) had a higher negative affect than those with high self-esteem (M=1.14, SD=0.199).

These results support our hypothesis that having high self-esteem would lead to a better mood. Interestingly, we did not find support for the other three hypotheses: high self-esteem would lead to less DTA, those in the mixed race condition would have more DTA, and those in the mixed race condition would have a worse mood.

Discussion

We found that our hypothesis stating that those with high self-esteem have a better mood than those with low self-esteem was supported by the experiment. The other hypotheses stating that higher self-esteem would lead to lower DTA, the mixed race condition would lead to higher DTA, and the mixed race condition would lead to a worse mood were not supported by our findings.

Our significant finding between higher self-esteem and mood can contribute to a better understanding of the subjects at hand. This result could be explained because those with a higher self-esteem are already confident about themselves and in their worldviews, so the experiment did not affect their mood. Another possibility could be that those with a higher self-esteem have a higher level of education, and they have been taught to be more tolerant of others. This would not cause their mood to fluctuate when their worldviews were being challenged.

Previous studies that have researched the same subjects our experiment looked at concur with our findings, while others do not. Greenburg et al.'s (1990) study looked at mortality salience in relation to both discrimination and mood. They found that becoming mortality salient increased discrimination. This was not in accordance with our findings. Their methods differed from ours since their study was of religious discrimination and ours was of racial discrimination. Although that aspect of their study did not have the same findings as ours, their other study on mortality salience and mood did concur with our results.

In relation to self-esteem and DTA, the study done by Hayes, Schimel, Faucher, and Williams (2008) found the opposite results. They found that those with lower self-esteem had a higher DTA, and we could not confirm this with our results. There were two major differences in their study: they manipulated their subjects' self-esteem and they measured DTA by a lexical

decision task instead of with a word completion task. These two differences in how the experiment was done could account for the differences in results.

There are a few limitations involved with this experiment. Almost all of the participants were of the same age group. Since there was not a wide range of participants studied it is hard to generalize the findings across all age groups. Also, the questionnaires were self reported, which means that the honesty of the participants cannot be ensured. There is the possibility that they could have answered the questions in a way that was socially acceptable instead of with their actual opinion. Another problem is the self-esteem. A participant could have high self-esteem, but the day of the experiment could have temporarily lowered it. Two possible ways to account for this would be to manipulate self-esteem or take multiple testings over a few days to find the participants' true self-esteem.

Self-esteem is a complex subject to understand and so is mood. Not one single study can tell us all the information we would like to know about the subject. Although this is true, there are still real world implications that can be taken away from our studies. These studies can help us understand the importance of having a high self-esteem. Also, the previous studies can help us theorize about other variables that could be related to self-esteem. This can open doors and be the motivation for an infinite number of studies in the future.

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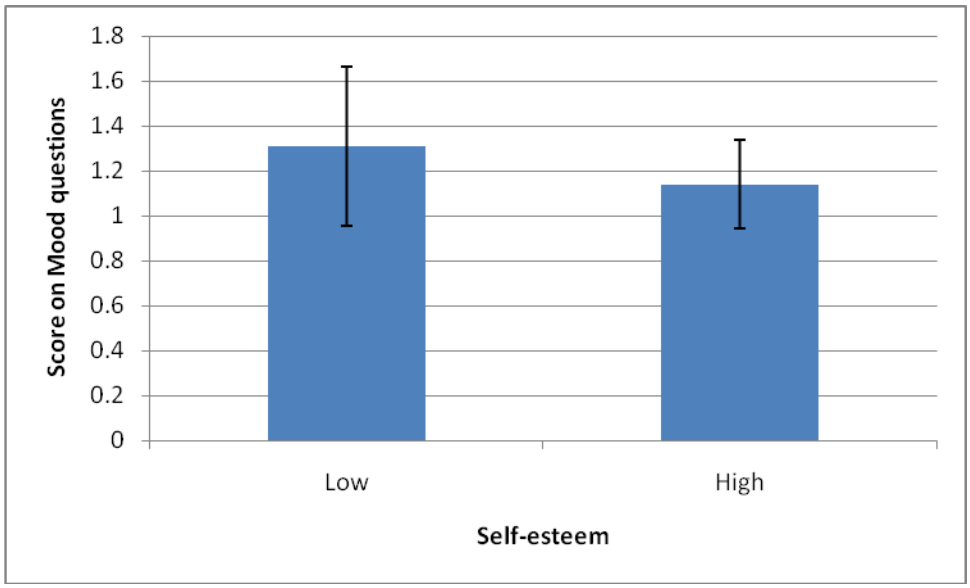
Table 1.

Self-esteem in relation to mood

Self-esteem	M	SD
Low	1.31	0.356
High	1.14	0.199

Note. M=Mean, SD=Standard Deviation


1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Score on Mood questions
Low
High
Self-esteem