

## A Chain is as Strong as Its Weakest Link: Investigation of Groupthink and Post-Decision Dissonance

April Berry<sup>1\*</sup> and Linda J. M. Holloway<sup>2</sup>

<sup>1</sup>Graduate Student in Clinical Psychology, Department Social Work and Psychology and Counseling, Alabama Agricultural and Mechanical University, United States of America

<sup>2</sup>Associate Professor, Department of Social Work, Psychology and Counseling, Alabama Agricultural and Mechanical University, Alabama, United States of America

**\*Corresponding Author:** April Berry, Graduate Student in Clinical Psychology, Department Social Work and Psychology and Counseling, Alabama Agricultural and Mechanical University, United States of America.

**Received:** January 31, 2017; **Published:** February 08, 2017

### Abstract

In this experiment, the theories of groupthink and post-decision dissonance were measured. This experiment examined how the pressure of making a unanimous decision affect individual thinking, decision-making, and post-decision dissonance in relation to the group. We hypothesized that groupthink would occur as the need for a unanimous decision was expressed and post-decision dissonance would occur after groupthink had been observed. This study was a staged experiment including undergraduate college students. This experiment used a matched-pairs design which allowed for participants to be placed in the control and experimental groups based off an answer to a controversial topic. The experimental group displayed behaviors of groupthink, while the control group did not. In essence, post-decision dissonance was not observed for the control or experimental group.

**Keywords:** Groupthink; Post-Decision Dissonance; Decision-making

### Introduction

Groupthink, a term coined by social psychologist Irving Janis (1972), occurs when a group makes faulty decisions because group pressures lead to a deterioration of “mental efficiency, reality testing, and moral judgment.” Groups affected by groupthink ignore alternatives and tend to take irrational actions that dehumanize other groups. A group is especially vulnerable to groupthink when its members are similar in background, when the group is insulated from outside opinions, and when there are no clear rules for decision making. When examining seven articles that talks about groupthink, each article defined groupthink similarly. The studies were based around how a group shifts its thinking to favor a particular decision.

Studies have been conducted to see whether groupthink occurs and how prominent is it in making group decisions. These studies analyzed different group settings and how decision making is impacted when placed in different situations under different circumstances. Each article that was related to groupthink had different sample sizes, different settings, and different situations that tested groupthink [1-3]. Based on each of the articles, the studies that were conducted involved a small group of participants who were either evaluating groupthink in previous studies that have been conducted before or actually placed in a situation where groupthink was observed. In the articles that related to groupthink being evaluated in previous scenarios or studies, the authors were trying to find ways that groupthink could have been avoided or the behaviors that stood out that influenced groupthink. Some of the research studies even discussed ways that the decision could have been shifted in another direction had there been room for negotiations (Miner, 1975). In contrast, some articles actually conducted experiments. These articles were similar in that they had very small samples that were tested in a particular setting and they all were trying to measure how groupthink can occur and what factors influence groupthink. These articles were not

similar in that they were not all trying to measure particular behaviors, but that some were just trying to measure the process and how it comes about in a decision making process. When looking at all the articles that measured groupthink, it can easily be seen that they all measured what they were trying to find out. Some articles measured behaviors and ways to avoid groupthink, while others measured how groupthink occurs. In the articles that only measured how groupthink occurs in different situations, the behaviors of groupthink should have been incorporated into that. This is because this would lead one to understand the different behaviors that lead to how groupthink is formulated.

In contrast to groupthink, there have not been that many studies that have been conducted testing post-decision dissonance. Post-decision dissonance, founded by Leon Festinger, is defined as a form of regret, a worry that perhaps one did not make the right decision. There have not been many research articles that have examined post-decision dissonance in context. When post-decision dissonance has been measured, it usually is done in small settings when one wants to examine how a person has felt after buying one particular item over another that he or she may have wanted more. One research article was found that examined post-decision dissonance and its effect on choice shift [3]. The author was proposing that knowledge of other's choices is assumed to lead a person to think of arguments others might have had for their choices. This study's main goal was to measure how people feel when there is a choice shift when it was different from the original choice. The study was divided into three conditions: the participants had an opportunity to think about the latter choice (condition I), an opportunity to think of other's choices was denied (condition II), and if knowledge of other choices was withheld (condition III). When examining this study against other small experiments that have not clearly been researched on, one can see that they have in common the fact that final choices impacted the individual after the decision was made. The difference between this actual research experiment and other small tests is that this has been an actual study that was conducted to test post-decision dissonance. Few studies have been conducted on this topic and therefore, the other small experiments are not backed by actual research.

In addition to groupthink and post-decision dissonance, there have been many studies conducted to test decision making. Decision making is defined as a cognitive process of resulting in the selection of a belief or course of action among alternative possibilities. Decision making usually results in a final choice or decision that may or may not be the unanimous decision. Several articles were found that examined how the decision making process is affected when groupthink occurs and post-decision dissonance happens after the process [4,5]. The studies were all experiments that evaluated a group setting under certain conditions and how that group was influenced to make a decision that could lead to a feeling of having made the wrong decision. In each of the studies that were conducted, the actual behaviors of groupthink as well as the term post-decision dissonance were not used. However, each of the studies provided a means for understanding how the decision making process occurs. The studies did not share the same conditions for which decision making was observed, but they did share the same process being observed.

The study conducted focused on the effect of groupthink on making a unanimous decision. This study used two groups who were faced with a controversial topic to examine how being in a group affects their decision and how that decision makes them feel afterwards. The feeling that they receive afterwards tested the theory of post-decision dissonance. The impact that post-decision dissonance has on individuals in society has mostly been associated with guilty feelings afterwards because of the group pressure that was upon them [6]. Irving Janis developed the theory of groupthink in the 1970s and this was used to gain a better understanding of the decision making process. This theory describes the behaviors and conditions that should be accounted for when measuring groupthink. Leon Festinger first studied the theory of post-decision dissonance, which is the nervousness one feels after making a decision that could possibly be wrong. This theory allowed for explanation of how groupthink affects one's feeling after a decision has been made.

The research question that was proposed asks if the pressure of making a unanimous decision affect individual thinking and decision making in relation to the group. The independent variable in this study was the group and the dependent variables were groupthink and post-decision dissonance. The study was conducted with two random assigned groups discussing a controversial topic. The experimental group was led by a confederate who was influencing the decision to go one way, and the control group just came to a decision among themselves without the influence of a confederate. We noted behaviors of groupthink among the two groups and saw how many times

those behaviors were shown. We then did a follow-up survey to measure post-decision dissonance and how it affected the individuals once the decision was made. The results were analyzed and it was concluded how groupthink affected the decision making process and how post-decision dissonance played a role after the decision had been made.

**Method Section**

The study that we conducted focused on the effect of symptoms of groupthink and the theory of post-decision dissonance on making a unanimous decision with or without the presence of a confederate, making this experiment a staged experiment. This study used two groups who were faced with a controversial topic to examine how being in a group affected their decision and how that decision made them feel afterwards. The groups were determined based on a matched-pairs design. We used an experimental design because we had a control and experimental group and the variables were controlled and manipulated.

**Research question:** How does the pressure of making a unanimous decision affect individual thinking, decision-making, and post-decision dissonance in relation to the group?

**Hypothesis:**

Groupthink will occur as the need for a unanimous decision is expressed.  
 Post-decision dissonance will occur after groupthink has been observed.

**Participants**

The general population of participants was from a small southern historically black private university who were undergraduate students ranging in aged from 17 to 22 with a variety of majors. Most of the students were drawn from General Psychology and Social Psychology classes. The students were chosen by a convenient sample because they received an incentive for their psychology class(s) if they participated. There were signs posted to give the time and location of when the study was taking place as well as individuals spreading the word around campus about the study. Ten of the thirteen participants were mostly of African descent, while three of the thirteen were other. The control group had six participants and the experimental group had seven participants. The control group had one male and five females and the experimental group had four males and three females. The demographic data for the control and experimental group is shown below in Table 1.

Demographic Data		
	Group 1 (Control Group)	Group 2 (Experimental Group)
Gender		
Males	1	4
Females	5	3
Race		
Black	5	5
Caribbean		1
Other(N/A)	1	1
Totals	6 participants	7 participants

*Table 1: Demographic Data.*

**Apparatus/Materials**

The independent variable in this study was the presence of a confederate. The dependent variables in this study were symptoms of groupthink and post-decision dissonance. There was a control group which was led by the confederate whose job was to deliberately sway the decision to go one way and one way only.

The dependent variable measuring symptoms of groupthink was measured by three specific symptoms: change in an individual's decision, emerging of a group leader, and hostility/emotional uncomfortableness [7]. Each of the three symptoms were given two observable behaviors: person who asks many clarifying questions, express of indecisiveness, one person who speaks the most, person who facilitates time management and final decision vote, person who stops engaging in the conversation, and escalation of voice and body movements. The group discussion was recorded as symptoms of groupthink were observed and coded for. The dependent variable of post-decision dissonance was measured by the agreement that the participant regrets their decision and/or would have made a different decision individually. This was measured by the post-survey after the decision making process had ended. The recording of the control group and experimental group's discussions were on an iPad.

There were two surveys administered in this study. The groups were assigned based on their answer on the demographic survey to the controversial topic of capital punishment: Do you agree with capital punishment (the death penalty)? The demographic survey included the participant's age, race, gender, classification, major, and a yes or no response to the controversial topic. Gender, classification, and the answer to the controversial topic were closed-ended questions and the others were open ended questions. The post-decision dissonance survey was six questions, with five questions being scaled questions. The scale ranged from 1: strongly disagree to 5: strongly agree. The one question that was not a scale question asked the participant to write the individual's name that influenced the final decision more. The surveys measured initial regret of the unanimous decision as well as inquired more information regarding two of the three symptoms of groupthink. Previous literature was done in an article titled *Biased Predecision Making* by Aaron L. Brownstein who also used questions that were on our survey in his experiment when measuring predecision making to post-decision dissonance.

### Procedure

Participants were only participating in either the control or experimental group; not both. They were assigned based on a matched-pairs design which was based off their answer to the controversial topic on the demographic survey. That question insured that groups would have opposing viewpoints and not all the same viewpoints. This experiment tried to make sure that the groups did not have differences outweighing similarities because homogeneity was key [8].

One of the researchers on the team distributed the demographic survey and one researcher distributed the post-decision dissonance survey. The demographic survey was handed out when the informed consent form had been signed and looked over. The control group was chosen once the demographic survey had been completed and brought into an empty classroom where they were given oral instructions and handed a scenario. The scenario was as stated: "Alexus is a 36 year old woman with a 15 year old son named Kevin. Leah, who is the best friend of Alexus, has had sexual intercourse with Kevin. Alexus murders Leah after finding out that Kevin may potentially be the father of Leah's unborn child. The court has found Alexus guilty for the murder of Leah and her unborn child. You all are members of the jury. It is your duty to decide whether Alexus receives the death penalty. Your group vote must be unanimous. You will have 30 minutes to deliberate. If you reach a consensus before the 30 minutes is up, please assign one group member to inform us of the final verdict." There was only 2 to 3 minutes set aside for a break. Once the 30 minutes had passed, the group had to state the verdict and then return to the room where the demographic survey was given. The participants then completed the post-decision dissonance survey where they gave insight on the process and any possible negative feelings or regret.

The same procedure was followed for the experimental group as for the control group. In contrast, the experimental group was led by a confederate who was influencing the decision to go one way rather than another. The confederate was to never agree with the group's decision and would cause a unanimous decision to not be made.

This study ensured scientific rigor in many ways. The independent and dependent variables were operationalized in a way that they were close in meaning to the actual theoretical meaning. The differences between the two groups lied in the answers to the controversial topic on the demographic survey and the presence of a confederate. Internal consistency reliability was ensured because we used the participants' responses at one point in time. Internal validity was ensured by temporal precedence, co-variation between the variables, and

the attempt to keep confounding variables eliminated by random assignment and experimental control. Even though this study was staged, it does exist in the real world, can be repeated, and was a model that could be potentially false.

**Results**

This experiment involved the use of using both qualitative and quantitative data. Qualitative data was used when the video recordings were watched and the symptoms of groupthink were recorded. Quantitative data was used in the ranking of feelings on the post-decision dissonance survey from strongly disagree to strongly agree and on the demographic survey measuring gender, race, classification, age, and major. This experiment involved the use of a matched-pairs design, which allowed for the research team to separate the control group and the experimental group based on the answer to the controversial topic on the demographic survey. Since this experiment involved two separate groups, an independent samples t-test was used for analyzing quantitative results. The independent samples t-test involved comparing the groups based on the questions from the post-decision dissonance survey against gender. The dependent variables were: On a scale of 1 to 5 (1 = strongly disagree to 5 = strongly agree), does your personal decision agree with the final unanimous decision that was made? (post-final); On a scale of 1 to 5 (1 = strongly disagree to 5 = strongly agree), how do you feel about the overall, unanimous group’s decision? (post-overall); At this point in time, do you feel you should have kept your initial decision prior to the experiment? (post-initial). These questions were measured against male and female from the post-decision dissonance survey.

The alpha level for the SPSS analysis was set at 0.1 because of a small sample size. The results from the control group concluded that the t-value for post-final was 0.667, which allowed for the null hypothesis to be retained; the t-value for post-overall was -2.000, which allowed for the null hypothesis to be retained; and the t-value for post-initial was 0.516, which allowed for the null hypothesis to be retained. Retaining the null hypothesis meant that the hypothesis was not supported by evidence within this experiment. The results for the experimental group concluded that the t-value for overall was -2.359, which allowed for the null hypothesis to be retained; and the t-value for post-initial was 2.000, which allowed for the null hypothesis to be retained. In addition to the control group, the hypothesis was not supported for evidence in the experimental group. This data can be shown in Tables 2.

Comparison of Mean Scores for Independent Samples T-test			
	Post-Final Variable	Post-Overall Variable	Post-Initial Variable
Experimental Group	*Data missing	-2.2359	2.000
Males			
Females			
Control Group			
Males			
Females	0.667	-2.000	0.516

**Table 2:** Independent Samples T-Test.

*Note.* \*Data missing for post-final variable due to difficulties with SPSS Analysis. Significant at the  $p < 0.10$

The results for the qualitative data measuring groupthink symptoms were found using a groupthink observation checklist, which measured three symptoms of groupthink with two behaviors per symptom. From the analysis, it was concluded that the experimental group exhibited over half of the signs of groupthink and the control group did not exhibit any signs of groupthink. This data can be seen in Table 3.

Groupthink Systematic Observation Checklist		
	Control Group	Experimental Group
Person who asks many clarifying questions	No	Yes
Express of indecisiveness	No	Yes
One person who speaks the most	No	Yes
Person who facilitates time management and final decision vote	No	No
Person who stops engaging in the conversation	No	No
Escalation of voice and body movements	No	Yes

Table 3: Groupthink Systematic Observation Checklist.

### Discussion

In this staged experiment, the hypothesis of groupthink was retained. We hypothesized that groupthink symptoms were likely to occur in both groups, however, groupthink symptoms were only observed in the experimental group. There were no signs of groupthink in the control group. When measuring post-decision dissonance by three variables, it was found that the null hypothesis was retained for both the control and experimental group. The t-value for both groups were above 0.1, which meant that the null hypothesis was not supported by evidence in the experiment. The SPSS Analysis for the post-final variable would not display on the t-test, so the research team could not analyze that particular variable to obtain results. The findings of this study were expected because of so many limitations to this experiment. The research team hypothesized that groupthink and post-decision dissonance would occur in both groups, however, with so many limitations, this was impossible to analyze. Groupthink however, did occur in the experimental group but not in the control group. Irving Janis did state that there were many behaviors of groupthink to occur within a group setting, and this experiment saw these behaviors happen. Post-decision dissonance did not occur in either group. This could be linked to Ariely and Levav [9] hypothesizing the balancing of two goals in group decision-making: goals that are strictly individual and goals that are triggered by the existence of the group which sometimes results in choices that undermine personal satisfaction and increase regret [10-19].

### Limitations

In this experiment, there were a few limitations that could have hindered the results. Those limitations included: a small sample size and offering of a separate jury decision to experimental group. The sample size was a limitation because the sample could not be generalized to a large population. There were an uneven number of group members in both groups; the control group contained six members, while the experimental group contained seven members. During the experiment, the experimental group had a hard time reaching a unanimous decision with the presence of the confederate. Since this was the case, the research team had to offer the experimental group the option of a mistrial.

### Future Research

In the future, there should be two experiments conducted ran to compare the dynamics of groupthink and post-decision dissonance to one another instead of only running the experiment once. This is because there could have been a correlation between the two experiments and there also could have been different groupthink factors found in the two experiments. Only conducting the experiment once makes our hypothesis and results limited to only one experiment. Even though there is limited research already conducted linking the two theories of groupthink and post-decision dissonance to one another, this experiment can add to that limited body. If there was a chance to do this again, we would incorporate running the experiment twice and analyzing the data. In addition, a future experiment also could use a different controversial topic. Instead of the topic of capital punishment, abortion or gay marriage could be used. This would increase the chance of the matched-pairs design to have the same number of participants in each group as well as offer the chance of the scenario to be different. In future research, the limitations that this experiment had should be avoided. This would ensure that an accurate and precise experiment could be conducted and ran properly.

### Conclusion

Groupthink and post-decision dissonance are two concepts with limited research correlating the two phenomena together. Even though the results of this experiment were not significant, researchers do understand that groupthink does occur when examining group dynamics and group pressure. In essence, post-decision dissonance does occur if one feels as if they did not make the right choice while being influenced by some external factor.

In society today, it is important for mental health professionals to understand that the effects of groupthink can play a vital role when wanting to understand individuals who may engage in addictive behaviors or substance abuse. These individuals may have submitted to group pressure or peer pressure and engaged in these activities. It is important that mental health professionals understand the reality that groupthink can play in many settings in society.

Researches should aim to creating interventions to stop groupthink from occurring when there is no need. It is evident that groupthink occurs within group dynamics, so the next step is to implement strategies and techniques that would be relevant in preventing this. For some reason, individuals do not see the need to differ or go against others. Individuals feel it's a must that they go along with the majority and not voice their concerns or opinions. There tends to be a need for individuals to have a desire for accuracy, affiliation, and a positive self-concept. This is what causes individuals to feel the need to go along to get along.

Implementing strategies and techniques to limit groupthink would greatly enhance the field of psychology and allow for those who study social and clinical psychology to focus on group dynamics and understand the importance of teaching individuals to just be themselves.

### Bibliography

1. Lunenburg C Fred. "Group Decision Making: The Potential for Groupthink". *International Journal of Management, Business, and Administration* 13.1 (2010): 1-6.
2. Stasser G and Titus W. "Pooling of Unshared Information in Group Decision Making: Biased Information Sampling During Discussion". *Journal of Personality and Social Psychology* 48.6 (1985): 1467-1478.
3. Burnstein E and Vinokur A. "What a Person Thinks Upon Learning He Has Chosen Differently from Others: Nice Evidence for the Persuasive-Arguments Explanation of Choice Shifts". *Journal of Experimental Social Psychology* 11.5 (1975): 412-426.
4. Miner Jr F. "A Comparative Analysis of Three Diverse Group Decision Making Approaches". *The Academy of Management Journal* 22.1 (1979): 81-93.
5. Park W. "A Comprehensive Empirical Investigation of the Relationships among Variables of the Groupthink Model". *Journal of Organizational Behavior* 21.8 (2000): 873-887.
6. Brownstein L Aaron. "Biased Predecision Processing". *Psychological Bulletin* 129.4 (2003): 345-368.
7. Crichlow S and Schafer M. "Antecedents of Groupthink: A Quantitative Study". *The Journal of Conflict Resolution* 40.3 (1996): 415-435.
8. Yetiv S. "Groupthink and the Gulf Crisis". *British Journal of Political Science* 33.3 (2003): 419-422.
9. Ariely D and Levav J. "Sequential Choice in Group Settings: Taking the Road Less Traveled and Less Enjoyed". *Journal of Consumer Research* 27.3 (2000): 279-290.
10. Griffin G and Hensley T. "Victims of Groupthink: The Kent State University Board of Trustees and the 1977 Gymnasium Controversy". *The Journal of Conflict Resolution* 30.3 (1986): 497-531.

11. Hayes FA, *et al.* "Nonparticipation as Self-Censorship: Publicly Observable Political Activity in a Polarized Opinion Climate". *Political Behavior* 28.3 (2005): 259-283.
12. Gibson LJ, *et al.* "Why do People Accept Public Policies They Oppose? Testing Legitimacy Theory with a Survey-Based Experiment". *Political Research Quarterly* 58.2 (2005): 187-201.
13. Gardner M and Steinberg L. "Peer Influence on Risk Taking, Risk Preference, and Risk Decision Making in Adolescence and Adulthood: An Experimental Study". *Development Psychology* 41.4 (2005): 625-625.
14. Goldstein N, *et al.* "A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels". *Journal of Consumer Research* 35.3 (2008): 472-482.
15. Kirmani A and Campbell M. "How Consumer Targets Respond to Interpersonal Marketing Persuasion". *Journal of Consumer Research* 31.3 (2004): 573-582.
16. Frederick S. "Cognitive reflection and decision making". *The Journal of Economic Perspectives* 19.4 (2005): 25-42.
17. Charness G, *et al.* "Individual behavior and group membership". *The American Economic Review* 97.4 (2007): 1340-1352.
18. Yackee JW and Yackee SW. "A bias towards business? Assessing interest group Influence on the U.S. bureaucracy". *The Journal of Politics* 68.1 (2006): 128-139.
19. Sy T, *et al.* "The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes". *Journal of Applied Psychology* 90.2 (2005): 295-230.

**Volume 2 Issue 2 February 2017**

**© All rights reserved by April Berry and Linda J. M. Holloway.**