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Claremont McKenna College

Why Empirical Studies of the Groupthink Model have Failed

submitted to

Professor Craig Bowman

By

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For

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Running Head: WHY EMPIRICAL STUDIES OF THE GROUPTHINK MODEL HAVE FAILED

Why Empirical Studies of the Groupthink Model have Failed

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Table of Contents

I.	Introduction	4
II.	Initial Research & the Groupthink Model	5
III.	Preventing Groupthink.	7
IV.	Revision and Expansion: An Update of the Groupthink Model	9
V.	Groupthink Beyond American Foreign Policy	14
VI.	Case Study Analyses of Groupthink	15
VII.	Empirical Studies of Groupthink	22
VIII.	Criticism of the Groupthink Model	44
IX.	Why Empirical Groupthink Research has Failed	46
X.	Suggestions for Future Research	47
XI.	References.	50
XII.	Appendix	54

Abstract

The theory of groupthink has been highly beneficial in the study of how groups make decisions. It has permeated almost every field containing decision making groups.

Despite its popularity, there has been a surprising lack of empirical support for the model. It is the aim of this paper to suggest a possible explanation for the current state of groupthink research. First the groupthink model is described briefly, followed by a look at several selected empirical and case studies of groupthink. A potential reason for the dearth of empirical is then proposed along with a suggestion for future groupthink research.

Introduction

Janis' (1972, 1982) Groupthink model has been transformatory in the study of how groups operate and make decisions. Ever since its inception, it has been expanded beyond its origins, explaining the functioning of policy making groups, and has been used to analyze the decisions made by pretty much any decision-making group. The theory has, however, met with criticism. A particular issue that arises when viewing groupthink research is the lack of empirical support for the phenomenon. Empirical research has yet to show full or even significant support for groupthink. Furthermore, studies that offer partial support of the model have been largely inconsistent in which aspects of the model they support. Qualitative and case study analyses, on the other hand, have in many cases provided substantial support for the model. Why, then, has it thus far been impossible to find the same support empirically? One could chalk it up to the surprising dearth of research on the topic, however, this still doesn't explain the inconsistency present in the existing body of empirical evidence. It is the purpose of this paper to put forth a possible explanation for this discrepancy. In order to do this we must briefly describe the creation of a groupthink model and its framework. Then it is prudent to establish the discrepancy between qualitative and quantitative research on the matter by briefly examining a selection of both empirical and case studies of groupthink. This will be followed by addressing some criticism of the model and proposing a direction for future groupthink research.

Initial Research & The Groupthink Model

The term "groupthink" was first coined by Irving L. Janis in his 1972 book "Victims of Groupthink: A Psychological Study of Foreign-Policy Decisions and Fiascoes". For all intents and purposes he is the father of all research on Groupthink. Janis (a research psychologist at Yale and later a professor at University of California, Berkeley) was prompted to propose this theory while reading about the Bay of Pigs Invasion (the Kennedy administration's failed attempt to overthrow the Castro regime in Cuba). Janis pondered on how Kennedy and his advisors (an elite group of seemingly intelligent individuals) could have approved such a flawed plan. This question led him investigate how groups, even when made of adequately equipped and qualified individuals, could make bad decisions. To investigate his hypothesis he utilized several high profile failures of American foreign-policy, namely the Bay of Pigs Invasion, The Korean War, The Vietnam War and the Attack on Pearl Harbor, although Janis acknowledged that the phenomenon of groupthink could occur in any situation involving group decision making. In his own words groupthink can be stated as "a deterioration of mental efficiency, reality testing, and moral judgement that results from in-group pressures".

Through his analysis of the aforementioned case studies, Janis noticed 6 issues that could possibly contribute to a group's failure to make good decisions. These were as follows: 1. Only exploring a limited range of possible solutions 2. A failure to critically

re-evaluate a solution that was chosen by the majority 3. Failure to re-evaluate initially rejected solutions 4. Little to no effort ro get expert opinions on the pros and cons of a particular course of action 5. A bias towards selecting information that backs up their chosen solution and 6. No deliberation on possible roadblocks that could hinder said solution. Janis saw these six behaviors as key hindrances to making good group decisions. These behaviors were generalized into 8 "symptoms" or warning signs of groupthink.

- A false sense of invincibility among members that leads to dangerous levels of optimism and risk taking
- 2. Mutual attempts to discredit potential issues and justify the chosen course of action
- 3. Undoubting belief in the ethicality of the group that leads members to disregard potential ethical consequences of group decisions
- 4. Negative view of opposing groups such that less aggressive responses seem ineffective
- 5. Pressure on any dissenting members
- 6. Self-censorship of any contradictory thoughts or actions
- 7. An illusion of concurrency with the decision of the majority, largely due to self-censorship
- 8. Active repression of contradictory information by members of the group to preserve the sanctity of the group (termed "mindguards" by Janis)

These eight symptoms, when present can serve as strong predictors of ineffective group decision making.

It should be noted at this point that there is a very fine line between beneficially cohesive groups and conditions that could result in groupthink. Janis acknowledged that cohesive groups can in many cases can be far more effective than an individual when it comes to making decisions, however highly cohesive groups are also very susceptible to the occurrence of groupthink. In response, Janis suggested several measures that could possibly counteract the effect of groupthink

Preventing Groupthink

Janis proposed three primary methods of countering the effects of groupthink. They are as follows:

- 1. Leaders of a group should encourage every member to critically evaluate all decisions and voice any concerns they might have. Furthermore, the leader must be willing to accept said criticism as well if they pertain to his/her judgements.
- 2. When assigning a task to a group one must be careful not let expectations of the outcome influence the decisions of the group. Therefore, when stating the issue which is to be tackled, it is best to do it in an impartial manner, merely stating the facts.

3. Multiple independent groups should be set up to tackle the same issue, each with its own separate leader.

These three practices in theory should help combat the effects of groupthink, but also create other issues of their own. Allowing critical evaluation of every decision made by a group is a time intensive process and is not practical in matters that might necessitate a rapid response. Furthermore, constant criticism could lead to a deterioration in the relationship among group members. Being impartial in explaining an issue and withholding information on expected outcomes might lead to a conflict between the leader and the members of the group. Having several groups work on the same issue seems rather wasteful and labor intensive and also limits the responsibility felt by each individual group. Janis therefore prescribed several more methods of fighting groupthink based on the generalized "symptoms", dealing with the issue of group insulation in particular. He notes, however, that said techniques could diminish group cohesiveness as a result. They are as follows:

- During the review of alternatives, it may be beneficial for the group to break into subgroups under separate leaders and then come back together to discuss their findings.
- Every group member should discuss the group's decisions and deliberations with a colleague who is not a member of the group and make note of their responses.
- Qualified individuals outside of the group should be periodically invited to group discussions in order question and test the views held by the group.

In addition to these points, Janis made additional ones to tackle issues resulting from

leadership bias.

• At least one member of the group should play the role of the devil's advocate, this

operates on the same principle as Janis' first method of countering groupthink but

is somewhat more practical.

In decisions dealing with an opposing organization, an adequate amount of time

should be devoted to analysing alternative courses of action that the opponent

could take.

After reaching an initial consensus on a course of action, the group should allow

any remaining concerns about said course of action to be voiced and allow a

re-evaluation of the plan.

Janis' notes that all of these are only partial solutions to countering groupthink and must

be used with caution lest they cause new issues of their own. Furthermore, Janis suggests

that members of policy-making groups be educated on the concept of groupthink so as to

better counteract its effects

Revision and Expansion: An Update of the Groupthink Model

In 1982, Janis created a revised and expanded model of groupthink in his book

Groupthink: Psychological Studies of Policy Decisions and Fiascoes. The resulting model

9

was far clearer and easier to understand. Janis distinctly describes, in their order of occurrence, the antecedent conditions, symptoms and consequences of groupthink. These conditions can be split into three groups, the first being the cardinal condition (group cohesion, which is necessary for the occurrence of groupthink), followed by structural faults and situational factors (both of which consist of "additional" antecedent conditions which increase the likelihood of groupthink but are not essential to its occurrence) The antecedent conditions as laid out by Janis are as follows:

- 1. *A high degree of group cohesiveness*. This is what Janis sees as the most important antecedent condition. Janis notes that incohesive groups can also fall victim to bad decision making, albeit for reasons other than groupthink. Without this condition, groupthink cannot occur.
- 2. *Insulation of the group*. This is the first of what Janis refers to as structural faults, issues with the way the group operates. These conditions are not necessary for the occurrence of groupthink, like group cohesion, but will certainly increase the likelihood that it will occur. Insulation refers to the isolation of the group from outsiders who could provide useful insight or different perspectives during the decision making process.
- 3. Absence of unbiased leadership. A strong and influential leader who does not utilize an unbiased style of leadership can easily exhibit a degree of influence on the decisions made by his or her group. In effect, this refers to a failure to adhere to a leadership style encouraging critical evaluation and inquiry and reliance on more authoritarian forms of leadership.

- 4. Dearth of framework for systematic decision making procedure. This factor in particular denotes the lack of a clearly delineated system used to make decisions, which could potentially counteract the effects of groupthink.
- 5. Homogeneity of social and ideological characteristics of members. This factor, as well as the previous three structural factors, represent the absence of possible preventative measure to combat groupthink. If group members are homogeneous in the way they think, they are less likely to discuss and suggest divergent views.
- 6. High stress resulting from external threats. This factor highlights the important role played by stress in the groupthink model. However, there is a caveat to this factor in that high stress alone does not necessarily result in groupthink (examples provided by Janis suggest that it could even have the opposite effect). For stress to play a role in causing groupthink, a low degree of faith in finding an alternate solution must also be present.
- 7. Low self esteem among group members. The final antecedent condition focuses on the role played by internal stress (as opposed to the external stress in the previous factor). This internal stress leads to low levels of self esteem and occurs due to A) recent bad outcomes of decisions/failed decisions, B) perception of incompetency among members at tackling the complex decisions that must be made and C) moral dilemma resulting from a need to make urgent and critical decision.

These antecedent conditions lead to a tendency for concurrency-seeking.

Concurrency-seeking as per Janis is the underlying mechanism of groupthink.

Concurrence-seeking refers to the response of the group to both internal and external

stressors in hopes of maintaining the emotional composure of the group. This process results in the occurrence of groupthink defined by the eight symptoms of groupthink briefly described below:

- 1. *Illusion of Invulnerability*. This leads to an dangerous level of optimism and advocates sever risk taking.
- 2. *Undisputed belief in morality of the group*. This leads to ignorance of the ethical or moral consequences of the group's choices.
- 3. *Rationalization*. This is done by members of the group as a collective in order to dismiss any threats to the group's chosen course of action.
- 4. *Stereotypical perception of opposition*. Oppositional groups and/or individuals are perceived as incompetent and/or morally inferior.
- 5. *Self-Censorship*. This is done by individual members of the group to suppress any doubts or concerns they might have regarding the decisions being made.
- 6. *Collective perception of agreement*. Group share an illusion of accord with the decision made by the majority of the group, this could be due to self-censorship.
- 7. *Pressure on dissenters*. Any member who challenges the consensus of the group is shown that this is not the expected behavior of a loyal group member.
- 8. *Appearance of mindguards*. Certain members of the group might assign themselves the selective role of a "mindguard" and actively control and even repress threatening information.

The symptoms can also be arranged into three types, namely overestimations, closed mindedness and pressures towards uniformity. Overestimations comprises the first 2

symptoms (illusion of invulnerability and undisputed beliefs in group morality), closed mindedness refers to the following 2 symptoms (rationalization and stereotyped views of the opposition) and pressures towards uniformity deals with the final 4 symptoms (self-censorship, collective perception of agreement pressure on dissenters and the appearance of mindguards). These symptoms of groupthink serve as predictors for the consequences of groupthink. Janis also referred to these consequences as defects in decision making resulting from groupthink. They are as follows:

- 1. Insufficient analysis of alternate courses of action
- 2. Inadequate discussion of group objectives
- 3. Failure to explore and discuss the consequences of the initial course of action
- 4. Deficient exploration of information that could influence decisions
- 5. Failure to reevaluate rejected courses of action
- 6. Biased processing of available information
- 7. Lack of effort devoted to planning for contingencies

A visual depiction of the groupthink model in its entirety is attached in the appendix (Figure 1). It details each category of the model as well the causal sequencing of factors, allowing a clear understanding of what Janis theorized.

Groupthink Beyond American Foreign Policy

While Janis may have focused solely on American foreign policy fiascoes when developing the theory of groupthink, he acknowledges that groupthink can occur in other contexts as well. Notable ones that he mentions are French military leaders and their reliance on the defences of the Maginot line in World War II, Neville Chamberlain's administration's policy of "peace" and ignorance of the growing German threat in the late 1930s, the Aberfan disaster of 1966 and the Thalidomide Birth Defects Scandal.

Another important study that served to expand the horizons of the applications of the groupthink theory was Eaton (2001). Eaton applied Janis' groupthink theory to two high profile business debacles that rocked the British markets in the mid to late 1990s. The two firms involved were Marks & Spencers, a leading multinational retailer based out of the UK, and British Airways. It is interesting to note that in both cases the issues arose as a result of the company pursuing a rapid globalization strategy. Eaton notes Janis' lack of attention to cases of groupthink outside of foreign policy, but also states that applying the concept to the realm of corporations doesn't require significant modification of the original theory. In his own words, "managerial thought" and practices have changed since 1972 and, due to the prevalence of the concept of corporate "culture", there has been more significance attached to reaching consensus. Furthermore, he notes two factors that could have been overlooked by Janis, citing evidence from two earlier articles. These factors are the amount of influence or power a leader has over his/her

subordinates (Flowers, 1977) and acceptance of a convention put forth by a powerful leader (McCauley, 1989). In order to apply the theory to his chosen case studies, Eaton utilized content analysis of press reports (mainly from *The Guardian* and *The Independent*) during the period of 1994-1999. He paid special attention to sentences or themes that related to the key symptoms of groupthink. There is an inherent level of subjectivity in this method, which Eaton acknowledged, but he states that the primary purpose of the search was to find statements that clearly indicated a dangerously high level of consensus.

Case Study Analyses of Groupthink

By and large, the main body of research in support of Janis' (1972,1982)

Groupthink model has come from qualitative and case studies such as Eaton (2001). In order to get a better understanding of the model, the following section will detail several notable studies in the field in an attempt to better illustrate the theory as well as highlight the differences between qualitative and empirical research on Groupthink. The selection of studies for this paper is based on Park (2000), which offered a detailed overview of research pertaining to groupthink.

Manz & Sims (1982) was another attempt to extend the groupthink model into a business context. In particular the researchers looked at autonomous work groups based

at a manufacturing plant in the US. The work groups at the plant ranged in size from 3-19 members. Each group was run by an elected leader, who received additional compensation along with increased responsibility. These work groups often had to deal with abstract situations involving everything from quality control to production or personnel problems. The group leaders arranged weekly meetings to discuss the problems, and also occasionally invited upper management to attend. Manz & Sims used three cases taken from these weekly meetings in order to illustrate Groupthink in action. The first case dealt with a discussion regarding a change in the shift schedule. It had been suggested that the shifts be moved to earlier in the day so that workers would be able to leave around early to mid afternoon. The group leader started out by noting that no one had spoken out against the keeping the current shift schedule in a previous meeting, thereby clearly illustrating both partial leadership and the illusion of unanimity. The one dissenter who advocated for the change in shift schedules was pressured by the group leader as well as the majority to capitulate. Self-censorship was also seen in the previous meeting, only one member openly voiced dissent despite numerous members showing clear nonverbal cues that they disagreed with the decisions being made. The second case dealt with a situation involving a quality control work group. During the discussion, a member noted that the group had been receiving a large number of complaints. The resulting discussion of this issue exhibited several signs of Groupthink. The group discovered that the source of complaints was a production work group that was unhappy with quality control for drawing out the quality evaluation process and causing a fall in productivity. A majority of the discussion centered around support for the group, backing up the perception that they were not to blame for these issues and that the complaints were unwarranted. This was interpreted as indicative of rationalization and stereotyped views of the production workgroup (the opposition). The third and final case was based on the discussions of another production work group regarding another quality control issue. During this discussion the upper management liaison to the group was also present at the meeting, soon after the discussion began he quickly took charge and stated what he thought the correct course of action should be. This is another clear violation of impartial leadership and thereby a contributing factor to Groupthink. Symptoms of groupthink seen in this case include self-censorship, seen on the part of the group members who showed nonverbal cues of disagreement despite not voicing said disagreement, and the illusion of unanimity on the part of the external liaison, a result of the self-censorship carried out by the work group members.

One of the strongest sources of support for groupthink phenomenon comes from Hensley & Griffin (1984). This paper applies the model to the crisis that faced the board of trustees of Kent State University during the period of 1976 to 1977, utilizing a case study analysis as well as interviews with key figures involved in the crisis. The crisis was centered around the construction of an addition to the school's gymnasium. The location chosen for the new addition was also the site of the infamous Kent State Massacre in 1970, an event which involved the national guard killing four students and wounding numerous others. The selection of this site was met by immense backlash from students, faculty and even third parties such as state and national politicians. Despite the immense

pressure to capitulate and choose a different site, the majority of the trustees stuck to their original decision throughout. Hensley & Griffin found evidence for nearly every facet of the groupthink model, from antecedent conditions to defects in decision making in their analysis of this case. Evidence for Janis' cardinal antecedent of group cohesion comes from their social relationships within the group and the prestige resulting from membership. An analysis of voting records from prior meetings also showed a tendency towards unanimous decisions. Structural faults were evidenced by the lack of student or faculty representation in the board (evidence of insulation), evidence of unanimous and undisputed decision making (lack of impartial leadership), a lack of structure in the process of decision making and a shared social background (homogeneity of members). Situational context factors included immense external pressure from students, faculty and outsiders, and low self esteem (resulting from the board of trustees having to deal with the power vacuum left by the departure of the previous president). The refusal by the board to allow the use of external mediators hinted at concurrence seeking tendencies and thereby opening up the case for interpretation as per the symptoms of groupthink. Illusion of invulnerability can be seen in the trustees dismissal of the threat posed by student protestors as well as a notion that they could tackle any problem they were faced with. Feelings of inherent group morality are visible in the way that the trustees viewed the conflict as a battle between right and wrong. Hensley & Griffin suggest that the trustees underwent four main collective rationalizations, 1) the participation of students in the selection process, 2) oppositions to the site was not on the same level as the trustees decision, 3) no other options existed and 4) the site was just a symbol for a deeper

conflict. Support for the symptom of stereotypes of the opposition is flimsy at best as there is no evidence that they viewed the student and faculty coalition as incompetent, although there is evidence to suggest that they saw them as morally base. Self-censorship was seen by the fact that several members were conflicted in their support of the site but still voted with the majority. Three of the nine members of the board were openly in disagreement with the decisions of the board, so there is no solid evidence suggesting an illusion of unanimity. Dissenters saw harsh repercussions, and discussion often became heated and emotional when dissent was introduced. Several members of the board did engage in mind guarding as well by blocking potentially relevant information form discussions. Evidence also exists for all eight defects of decision, except the failure to plan for contingencies which the board had carried out multiple times. While it must be noted that this case did not perfectly support the groupthink model, it did meet all the requirements posited by Janis (1982), thereby strongly hinting at the existence of groupthink. The outcome may not have been a "fiasco" on the same scale as those described by Janis, but the costs were still high and clearly avoidable. Furthermore, Hensley & Griffin do advocate for the addition of some additional factors such as a failure to communicate with the opposition, refusal to work with mediators and refusal to postpone or prolong the decision making process.

McCauley (1989) revisits the cases analyzed by Janis (1972, 1982) paying special attention to the role played by compliance. Compliance (public agreement coupled with private disagreement), as per McCauley, plays a separate role when compared to

cohesion. McCauley disagrees with Janis' assertion that compliance will decrease with group cohesion (compliance will give way to internalization instead). Cohesion in the context of groupthink refers to attraction to the group and the desire to continue being a member. McCauley notes that cohesion and compliance need not go hand in hand. Particularly, one might feel so certain of group support that they see no need to comply. He then goes on to state that the structural and situational antecedent conditions, in addition to increasing cohesion, may also increase compliance. To support this he cites the examples of lack of impartial leadership which he says is, in essence, the setting of norms, lack of decision making framework is akin to a lack of norms that might counter those set by the leader and member homogeneity will limit differences in opinion. To support his idea of compliance's role, McCauley revisits case studies in Janis (1982). In the Bay of Pigs case, he states that evidence for compliance lies in the different explanations of what occured. Janis' explanation states that the policy group had reached a high level of cohesion but wasn't at a stage where the individual members could be completely frank. Another explanation hypothesizes that, like many politicians, the members of the group were afraid of losing status if they objected. A common thread in the explanations is the presence of self-censorship. Janis states that the members of the policy group, who were all highly educated and revered politicians would be unlikely to simply comply. McCauley, however, points out that such interpretations are highly subjective, and that evidence does not point towards internalization. McCauley makes an important distinction here, doubts in terms of the decision outcome are not evidence of compliance, however, doubts relating to whether or not the decision is right are.

McCauley goes on to analyze the rest of the case studies most of which he interprets as being groupthink without the influence of compliance save for the escalation of the Vietnam War which, like the Bay of Pigs, contains evidence pointing towards compliance. Since only two out of the six case studies support the compliance theory, it is difficult to say that the antecedents of groupthink serve as antecedents of compliance. Therefore, it is also not prudent to say that the two are inextricably linked. Nonetheless, McCauley draws attention to a flaw in the groupthink model. It is interesting to note that in many empirical studies, the measure of self-censorship is typically linked with compliance in that members may publicly agree, but share other sentiments privately.

Moorhead et al (1991) applies the groupthink model to a more recent event, the Challenger Disaster of 1986. The analysis of the flight readiness meeting prior to the launch of the shuttle reveals a clear presence of groupthink. Antecedent conditions, such as a failure to meet directly with the engineers to discuss concerns that were brought up (insulation), were present. This led to symptoms of groupthink such as stereotyped views of the engineers (the opposition) and defects in decision making, such as the assertion that the shuttle would either launch on the given day or not launch at all (few alternatives). Overall, the case exhibits all the necessary factors in the groupthink model. Key takeaways from this study include the researchers assertions that two more factors must be added to the groupthink model. These factors are time and leadership (advocated a more significant emphasis on its role), both of which are important in this case. Time constraints were relevant because the launch was already facing delays, and the

committee was trying to prevent further such delays in order to save face in front of the politicians. Leadership is already included in the model, but Moorhead et al advocated for it to play a much bigger role and serve as a necessary precondition like group cohesion.

Moorhead & Neck (1992) provided yet another application of the theory of groupthink, this time in the judicial system looking at the trial of famous businessman and cocaine trafficker, John Delorean. In this case, all the antecedent conditions were present among the jury members yet groupthink was avoided. In effect, the jury group did not exhibit the symptoms of groupthink. The researchers chalk this up to the use of structured decision making procedures. Three components of methodical decision making are put forth. These are procedures for exploring alternatives, searching for information and allowing for democratic leadership. This study is useful in that it expands Janis' (1972, 1982) idea of using procedure to prevent groupthink, allowing it to be more easily applied.

Empirical Studies of Groupthink

Janis (1972) offered no empirical support for his concept of Groupthink. Instead, he utilized an analysis of past foreign policy "fiascoes" to offer support for his theory.

This lack of experimental evidence has led to skepticism as to the validity of Groupthink, a skepticism that Janis failed to address. The burden of empirical proof has therefore

fallen on the research community. Many have attempted to investigate the phenomenon, and notable/significant attempts to do so will be briefly detailed in the following section

Flowers (1977) was the first attempt to empirically support Janis' theory of groupthink, occurring only 5 years after Janis first proposed the concept. Flowers' study utilized a 2 x 2 factorial design with the two independent variables being leadership style (closed or open) and group cohesiveness (high or low), both of which were factors Janis considered integral to the occurrence of Groupthink. Outcome variables included the number of solutions suggested and the use of facts provided. The sample was composed of 120 college students from Indiana and Syracuse Universities. These students were split into 40 groups consisting of 3 members and a leader (who received special training). The training consisted of the leaders being given a set of instructions corresponding to either the "open" or "closed" leadership styles. "Open" leaders were told to not make their personal opinion known until the rest of the members had done so, encourage adequate discussion of each possible solution and emphasize the importance of taking all viewpoints into consideration. "Closed" leaders, on the other hand, were told to state their preference before beginning the discussion, not encourage dialogue of each and every possible solution and emphasize the importance of consensus on the group's decision. Group cohesion was manipulated by either ensuring the group members were strangers or asking the leader to recruit his/her acquaintances as members of his group. The groups met and their discussions were recorded for later analysis. The members of each group were assigned a role in order to rapidly acclimate them with the case study they were

presented. The case study given to the groups was a made up personnel issue facing a school board. It was designed in order to present elements that were common to the case studies presented by Janis. These were controversy (there is no clear "best" answer), aspect of morality (concerned the fate of other individuals), time dependent crisis (a decision was required immediately), competition with hostile/outside group and a lack of complete shared knowledge (some facts were withheld and only given to members playing a specific role). The groups were told to reach a decision within 30 mins and upon completion (finding a solution that everyone agreed upon) were given an individual questionnaire assessing pre and post -discussion consensus, perception of freedom to speak out, willingness to do a similar activity with the same group in the future and attractiveness of the group (in terms of being interesting, engaging and enjoyable). The tapes were analyzed by judges who were kept unaware of the experiment's purposes in order to ensure that the rules of the experiment were followed by all participants. Further analysis of the answers to the questionnaire revealed some telling results. Regardless of the cohesiveness of the groups, there was a main effect of leadership style on the outcome variables of # of solutions proposed and use of facts. In other words, groups which had closed leaders saw fewer solutions proposed and fewer facts utilized, both signs that could indicate groupthink. On the other hand there was an almost negligible effect of cohesiveness on both outcome variables. This directly contradicts Janis' assumption of the essential nature of cohesiveness in the groupthink model. Flowers offers several potential explanations for this issue. It is possible that the way the leadership styles were designed could have caused them to potentially reduce the observed effect attributed to

cohesiveness of the groups. Flowers also notes several key differences between the cohesiveness in the experiment and the cohesiveness in Janis' "fiascoes". The perpetrators in Janis' case studies had relationships which had existed for a much longer period of time with the fellow group members as well as existing on both professional and social levels. Flowers also acknowledges the differences in the situations attributed to importance, magnitude, group size, etc, as well as suggesting that Janis had omitted a potentially relevant variable, the degree of power the leader has over the rest of the members. Flowers suggested that adding power as a factor in the groupthink model might strengthen the case for groupthink.

Courtright (1978) was another early attempt to investigate the groupthink phenomenon in a laboratory setting. The study utilized a 2 x 3 design. The independent variables were group cohesion and what Courtright described as strict parameters set by the group leader in relation to acceptable solutions, referred to as the induction of parameters. It should be noted here that a major shortcoming of this study was the omission of the third factor Janis noted as important for predicting groupthink, the blocking of potentially relevant outside information. Instead of manipulating this variable as well, as was attempted in Flowers (1977), Courtright chose to make all relevant information available to all groups regardless of experimental condition. Outcome variables consisted of the number of possible solutions proposed by every member, the number of statements of agreement per member and the number of statements of disagreement per member. Group cohesion was manipulated via the use of a

pre-experimental discussion on an unrelated topic. Following this discussion participants in low cohesion groups were assigned to new groups to carry out the actual experiment whereas high cohesion groups remained together. Induction of parameters was manipulated via instructions provided to groups. The groups were split into three separate conditions on this basis. The instructions issued were related to the amount of time the group had to solve the issue presented to them, Courtright considered using a group leader to accomplish this manipulation but felt that doing so resulted in other issues, specifically the members' perception of the leader (who would have to be selected by the experimenter as there was insufficient time for a "natural" leader to arise). In the first condition (the "freed" condition) participants were told that the time given was more than adequate and emphasis was placed on coming up with a large number of solutions. In the second condition (the "limited" condition) participants were told that the time allotted was inadequate and emphasis was placed on consensus rather than discussion. The third and final condition was given no specific instructions aside from being informed of the time available for discussion; they served as the control condition. The sample consisted of 96 freshmen enrolled in speech and composition classes at the University of Iowa. The participants were split up into groups of 4 and, following the pre-experimental process, were either reassigned to new groups or remained in the same group depending on whether they were assigned to a low or high cohesion condition. The groups were then given a questionnaire in order to check their levels of cohesion. In order to strengthen the cohesion variable, members of high cohesion groups were told that their results showed that they were highly compatible. Members of low cohesion groups were told that it was

not possible to find the most compatible group for them and they were therefore randomly assigned. The groups were then given the case study which they attempted to solve ("What is the best method of recruiting new students to the University of Iowa?") as well as their specific instructions (based on induction of parameters condition). The groups were given 25 minutes to come up with a solution. Video recordings of each groups' discussion underwent content analysis by unbiased independent graders. The solutions proposed by each group were also graded according to the Leathers Productivity Rating Instrument. The results showed that the manipulation of group cohesion had produced a significant difference in the perception of cohesion among participants. In addition, groups in the high cohesiveness limited condition showed far fewer statements of disagreement (which can be seen as indicative of groupthink). Results relating to the quality of solutions proposed were not significant, however, the importance of this parameter may be overestimated as Janis (1972) noted that groupthink need not always result in bad decisions being made. Courtright sees the results as supportive of his two goals, namely to test the accuracy of Janis' theory and gauge its ability to be tested empirically. However, the only significant outcome variable was the statements of disagreement, which Courtright contends to be indicative of groupthink. Therefore, evidence in this particular study can be seen as somewhat lacking. It should also be noted that the results directly contradict those of Flowers (1977), who could not show a significant effect of cohesiveness on groupthink symptoms. In addition some experimental issues such as the omission of several potentially important variables and

low interrater reliability necessitate that we view the results of this study with a grain of salt.

Callaway & Esser (1984) built upon the findings of Flowers (1977) and Courtright (1978). Their study utilized a 2 x 2 factorial design with cohesiveness and procedure as the independent variables. The outcome variables were responses to a questionnaire designed to measure cohesiveness on the basis of several factors (such as willingness to participate in a similar activity with the same group in the future, ability of the group, effectiveness of the experimenter in creating groups) and performance on two tasks (the "horse trader task" and "lost at sea task") aimed at measuring decision quality. Similar to previous studies, analysis was carried out via tape recordings of the discussions. Cohesiveness was manipulated using a method akin to the one utilized by Courtright (1978). Participants were given a questionnaire prior to the experiment that supposedly assessed their personality. On the basis of this dummy questionnaire, they were told they were either matched (high cohesiveness) or that the experimenter had been unable to match them (low cohesiveness) with their fellow group members. Procedure was manipulated via written instructions provided to the groups. Groups in the procedure present conditions were issued these instructions which highlighted several important factors for good decision making (such as exploration of all possible solutions, willingness to question possible decisions). Those in the procedure absent condition were issued no instructions. The cohesiveness manipulation showed significant results, with groups in the high cohesion condition rating themselves higher on the post experimental

questionnaire. There were, however, no significant results in terms of decision quality. In order to get a more accurate picture, the experimenters carried out a second round of analyses by dividing the groups into three categories (low, medium and high) based on summed cohesiveness scores. This second round of analysis showed a significant main effect of group cohesion on the lost at sea task, with high cohesion groups scoring higher (indicative of a poor decision in this case) than the other two conditions. Notably, medium cohesion groups scored lowest in this task, suggesting that a moderate amount of cohesion might lead to better decision making. Further scrutiny of the questionnaire and recordings revealed fewer statements of disagreement in the high cohesion groups as well as higher ratings of confidence. The higher ratings of confidence, in particular, could denote evidence for Janis' first symptom of groupthink, a false sense of invincibility among group members that results in high levels of risk taking and over-optimism. The horse trader task showed no significant results, although the experimenters note that this task may not be indicative of the type of situation that could lead to groupthink as there is only one correct solution to the task (Janis stated that situations that could result in groupthink would have many possible solutions). There also seems to be a mixed effect in relation to the procedure manipulation, contradictory to the results of Flowers (1977) who carried out a similar manipulation via leadership style. A possible explanation for this could be the weaker manipulation carried out in this study, Flowers and Courtright both utilized conditions in which factors influencing good decision making were encouraged and discouraged, whereas Callaway and Esser only included a condition in which such practices were encouraged.

Leana (1985) replicated the study carried out by Flowers (1977) in light of revisions made to the groupthink theory by Janis (1982). The study used a 2 x 2 factorial design with leadership style (directive or participative) and cohesiveness (high or low) as independent variables. The sample was composed of 208 undergraduate students. A key difference in this study from Flowers is that groups in the cohesive condition were made from students who had worked in the same groups for class projects over the course of a semester. Participants in the non-cohesive condition were randomly assigned to groups. Non-cohesive groups had a randomly selected leader, whereas cohesive groups were issued a questionnaire a couple of weeks prior to the study to assess which member of group was perceived to have the most influence. This individual was then chosen as group leader. Leaders assigned to the participative condition were told to follow procedures that counteract groupthink (stating their preference last, encouraging exploration of all alternatives). Directive leaders were told to enact behaviors that would increase likelihood of groupthink (state their preference first, emphasize coming to a decision quickly). Just as in Flowers, each member of the group was assigned a particular role and given specific information relating to that role which was not made available to the rest of the group. The groups were all given the same situation in which they had to choose an employee (out of 6) to lay off. Manipulation checks were carried out on the independent variables (cohesion and leadership style). Cohesive groups had higher scores of group attraction and participative leaders had members with a higher perceived freedom of expression, thereby confirming that both manipulations had been successful.

An additional manipulation check was carried out on the leadership variable by gauging the leader's influence in reaching their respective group's final decision. This check showed that directive leaders had more influence on group decisions and that differences between cohesive ("elected") and non-cohesive ("appointed") group leaders were not significant. The outcome variable of decision processes was split into several separate parts. On the first part, self-censorship. There was no significant effect on self censorship between directive and participative leaders however, there was a noticeable and statistically significant effect in terms of group cohesion. Interestingly, the results here contradict Janis' (1982, 1972) theory; groups with high cohesion showed less self censorship than those with low cohesion. The next portion of the theory to be analyzed was selective bias in processing of information available. Analysis here was carried out by listening to tape recordings of the discussions and identifying instances of information being given to groups after a decision was made. This could be interpreted as an attempt to bolster support for the decision that the group had agreed upon. However, no significant effects could be seen here. The next metric was the number of solutions proposed and discussed by each group. Mirroring the results of Flowers' study, no difference was seen between cohesive and non cohesive groups. Participative leaders, however, on average had more proposed solutions than directive ones. Risks and reappraisal were the final two factors to be analyzed, but showed no significant effects. Leana notes that this and the results seen for selective biases might be a result of the time constraint. Analysis of the decisions themselves and the questionnaire revealed that, despite going along with the decision, members of groups in the directive leader

condition often did not agree with the final decision made by the group. In summary, the study reiterated the findings of Flowers (1977) in relation to the influence of leadership style on groupthink. The contradiction of results in relation to group cohesion, however, seems startling. Leana states that this could possibly be due to the fact that the members of the high cohesion groups may be more comfortable with each other and therefore be more willing to speak their mind. An important attribute she notes here is the interweaving of task oriented groups and experience of working with fellow members, both of which could be attributes that contribute to the results seen. She suggests that future studies separate these two to more clearly determine which one is responsible.

Gladstein and Reilly (1985) analyzed a different component of Janis' (1972, 1982) Groupthink model, the role played by external threat. The researchers hypothesized that the existence of an external threat could limit information processing as well as create a bias towards a presiding decision. In order to test this theory, they utilized a management simulation known as Tycoon. The Tycoon simulation, which took place over the course of 6 days, consisted of participants choosing a company (each with its own unique characteristics) via a bidding war and then proceeding to run and manage all aspects of said company. A key part of this simulation was the the ability of the researchers to institute external events such as natural disasters, major government policy changes and even terrorism. These events played the role of external threats to the decision making group. Time pressure was also manipulated by cutting the allotted decision making time from 3 hours to 45 minutes halfway through the simulation. The

sample was composed of MBA students at the Tuck School of Business at Dartmouth University enrolled in a business policy class. One hundred and twenty eight students were used in the study and were formed into 24 groups (each representing a company) consisting of 5 to 6 people. A 2 x 2 factorial design was utilized with the two dependent variables being impact of the external event (high or low) and time pressure (high and low). The events were classified as high or low impact based on the financial consequences resulting from the event. The order of high impact and low impact events was randomized for each group so that all groups went through all four experimental conditions. Dependent variables were measured using a questionnaire filled out at the end of a decision making period which assessed information processing as well as loss of control. Results of the study showed that increased external threat resulted in restricted information processing and higher levels of stress. Increased time pressure, however, did not seem to produce conclusive results across the measures of information processing. The researchers hypothesized that even though one might assume that a decrease in time would result in less information processing, it might instead lead to more efficient information processing. There was no evidence to support that loss of control correlated with threat or time pressure. While not explicitly testing groupthink, this study is still useful in that it tests a facet of the model that hasn't seen much research. It must also be noted that even though the researchers did not control cohesion, participants were permitted to self select into their groups meaning that cohesion could very well have played a role in some of the results seen.

Callaway, Marriott and Esser (1985) also took a different approach when testing the groupthink hypothesis, looking particularly at the role played by dominance exhibited by group members. In addition, the researchers also wanted to test Janis' (1972) suggestion that concurrence seeking occurred in order to reduce levels of stress. Dominance in this case was defined as a tendency to "argue, persuade and influence others" as well as a tendency to play the role of leader. The sample was comprised of 112 students recruited from lower-level psychology classes, formed into 28 groups of 4. The study used a 2 x 2 factorial design, with dominance and presence of decision making procedures. The dependent variables were decision quality, measured via the Lost at Sea task used in Callaway and Esser (1984), and process measures, obtained via analysis of the recordings of group discussions alongside a set of post experimental questionnaires. Prior to being formed into groups, these students were given a questionnaire meant to assess the level of dominance trait in their personality. They were classified as either low or high dominance via the use of a median split. Group cohesion was held constant by telling participants that the questionnaire had been used to match them with their fellow group members, thereby attempting to simulate high group cohesion. The presence of procedure was manipulated by telling groups in the procedure present condition guidelines for good decision making. Results showed that high dominance groups had higher quality decisions, used more discussion time, had more statements of disagreement and agreement, and had lower levels of state anxiety. Procedures present groups used less discussion time. The study thereby provided support for the stress reduction hypothesis of groupthink. Results for the utilization of procedures (which

should combat groupthink) were inconclusive however. The researchers note that, especially in the case of low dominance groups, personal accountability may be necessary in order to effectively carry out a good decision making procedure.

Moorhead and Montanari (1986) presents a comprehensive test of the groupthink phenomenon in light of the slightly revised and more clearly stated model of groupthink in Janis (1982). The particularly focuses on the causal sequence put forth by Janis, with antecedents leading to symptoms and so on. Moorhead and Montanari initially comment on several previous Groupthink studies, namely Flowers (1977), Courtright (1978) and Leana (1985). They state that the issues with these studies, in particular Flowers (1977) and Courtright (1978), are that they failed to create the necessary antecedents for groupthink to occur. In particular, they failed to accurately recreate the cohesiveness described by Janis (1972, 1982). Furthermore they note that Courtright's study, while attempting to be comprehensive, still only managed to account for only two of the antecedent conditions and only three of the defects in decision making. To this accord, Moorhead and Montanari sought to create an inclusive test of groupthink phenomenon. They began by searching for scales relevant to the variables present in the groupthink model, but were only able to find measures pertaining to cohesion. Therefore, scales for the other seven antecedent conditions were created by the researchers. The scales were designed as 5 point likert-type measures and were tested to ensure validity. These scales were eventually expanded into the Groupthink Assessment Inventory detailed in depth in Moorhead & Montanari (1989). Testing and analyses revealed that the underlying

concepts of some of the antecedent conditions were closely related to what Janis had proposed but, for the sake of simplicity, the three factor that explained the most variance (cohesion, insulation and leadership) were used. Analyses of the symptoms however revealed that there was significant similarity in some of the underlying concepts. Therefore, the symptoms were distilled into four factors utilized in the study. These were: Invulnerability (illusion of invulnerability and negative perception of non-group individuals), Group Morality (inherent feelings of group morality and unanimity/rationalization), Self-Censorship and Discouraged Dissent (pressure on dissenters and negative view of dissenters). Defects in decision making underwent a similar process resulting in two distinct factors, Few Alternatives (# of alternatives discussed and lack of consideration regarding contingencies) and Lack of Expert Advice (rejection of outside expertise and selective bias in use of information). Antecedent conditions not manipulated were controlled via experimental conditions (ex. Use of extreme time constraint on decision making). As with numerous other studies in this realm, the sample consisted of students recruited from business policy classes. These students were arranged into team of 3-5 for an overall team count of 45. It is useful to note here that all the teams had previously worked together in a competitive simulation over the course of 3 months and were therefore familiar with one another. Because the data procured from this study was cross-sectional, the researchers decided to carry out a path analysis instead of an ANOVA/MANOVA typically seen in the aforementioned studies. The use of path analysis also allowed the researchers to get a better idea of the causal relationships between the antecedent conditions, symptoms and decision making

defects. The results showed that the most significant antecedent condition was insulation. The groups that rated themselves highest on this category had the lowest performance. The other antecedent conditions failed to show any noticeable effects on performance. All the antecedent conditions did, however, have an impact on symptoms and defects. Cohesion had a negative correlation with self-censorship and the defect of alternatives as well as positive correlation with discouragement of dissent. Insulation was negatively correlated with invulnerability and rejection of expert advice and positively correlated with the proposal of alternatives. Leadership was positively correlated with morality and discouraging dissent and negatively correlated with the defect of alternatives. These results showed mixed support for the groupthink model. Some of the results, such as the positive correlation between leadership and morality/discouraging dissent, reinforce the theory. On the other hand, the results also directly contradict the relationships that Janis proposed, such as the negative correlation between cohesion and self-censorship. Despite this, the study holds merit as one of the most comprehensive tests of groupthink, focusing on all four levels of the theory. Furthermore, even if they do not match Janis' theory, the causal relationships seen between each of the four levels provided some support for the framework of groupthink. The study was also groundbreaking in that the nature of cohesion among the groups (based on longer term relationships among group members as seen in Janis' case studies) is far more similar to the cohesion described by Janis.

Turner et Al (1992) attempted to build on previous empirical studies of groupthink, most notably Callaway & Esser (1984) and Flowers (1977), in order to get a

better understanding of the underlying mechanisms of groupthink. In particular, the researchers tried to reconcile the conflicting results seen in previous groupthink research. The researchers hypothesized that poor decision making attributable to groupthink should only occur in groups with high external threat and high cohesion (i.e. those with all the antecedent conditions of groupthink present, the "strict" hypothesis). They also note two possible hypotheses in relation to decision quality, the "additive" hypothesis (addition of more antecedent conditions lead to poorer decisions being made and the "liberal" hypothesis (takes into account unique factors present in each situational context). The researchers note that these hypotheses are applicable in the case of symptoms and decision making defects as well. To test this, Turner and her colleagues carried out three separate experiments. The first experiment was a basic test of the groupthink theory using a 2 x 2 design with group cohesion and external threat as the independent variables. The sample was comprised of 180 students, arranged into groups of 3. Threat was manipulated by telling groups in the high threat condition that they were being videotaped and that poorly performing groups would be used as part of a training program. High cohesion groups were given name tags identifying them with a certain group and engaged in a short pre-experimental discussion of their similarities. Decision quality and self reports of symptoms and decision making defects served as dependent variables. Results showed that groups in the high cohesion/high threat category and low cohesion/low threat category produced the poorest quality decisions. Cohesion and threat had mixed effects on groupthink symptoms. Most interestingly high cohesion resulted in decreased self censorship, a direct contradiction of Janis' theory. Results as per decision

making defects were also inconclusive. This points to the existence of the "liberal" hypothesis of groupthink as opposed to the "strict" or "additive" one. The researchers interpreted the results as supportive of what they term "social identity maintenance", an underlying mechanism of groupthink in which members strive to preserve their affirmative view of group functioning. The second experiment was an expansion of the manipulation check to ensure that cohesion had properly been induced. The sample used consisted of 72 students assigned into groups of 3. Cohesion served as the independent variable and was manipulated using methods similar to those in the first experiment. Self-report scales of cohesion acted as the dependent variables. Results showed that the cohesion manipulation had produced higher scores on the cohesion scales. With these results as well as social identity maintenance in mind, the third and final experiment aimed to replicate as well as extend the pilot study. In order to further test social identity maintenance, the experimenters included manipulation of "distraction" as well. This distraction consisted of music being played in the background during group discussions, which in theory would provide an excuse for potentially faulty decision making and thereby prevent group members from having to unconsciously carry out detrimental behaviors to preserve their positive image of the group's decision making process. Cohesion was held constant in this study by giving all groups the high cohesion manipulation from experiment 1. Therefore, threat and distraction served as the independent variables. The same dependent variables used in the first experiment (decision quality, symptoms of groupthink and defects in decision making) were carried over. Results were consistent with experiment 1 in that groups with high external threat

performed the worst, notably though groups with high threats and a present distraction performed noticeably better. As cohesion was not manipulated here, results for symptoms of groupthink and defects in decision making were ambiguous. Overall, this experiment succeeded in replicating the results of the initial experiment in that high threat/high cohesion led to the lowest decision quality, as well as supporting the social identity maintenance mechanism. As a whole, the study enables a deeper look at the underlying functions of groupthink. The lack of support for the additive and strict hypotheses might also lead to a questioning of the causal sequence inherent in groupthink framework as per Janis (1982) as well as Moorhead & Montanari (1986, 1989).

Bernthal & Insko (1993) looked at one of the most conflicted aspects of groupthink research, group cohesion. The researchers sought to investigate the mixed support seen for Janis' (1972,1982) assertion that group cohesion was the single most important antecedent condition for groupthink. In order to do this, the researchers made a key distinction between "task-oriented cohesion" and "social-emotional cohesion".

Task-oriented cohesion represents a drive to accomplish the objectives and tasks given to the group. Social-emotional cohesion denotes maintenance of social relationships among group members as most important to the group. The researchers note that the manipulation of cohesion in prior studies, such as Callaway & Esser (1984), is mainly a manipulation of task-oriented cohesion as participants are typically told that they were matched with the fellow group members in order to maximize performance of the task given, thereby at least partially explaining mixed support for the groupthink model.

Based on this, the two hypotheses were that groupthink symptoms would be least probable in highly task-cohesive groups and most probable in highly social-emotional cohesive groups. The sample consisted of 138 female undergraduate students from the University of Carolina Chapel Hill. The decision to use only female students may seem rather odd and could lead to a bias in the results as seen in previous studies such as Kroon et Al (1992), which noted that the composition of groups based on gender could have an effect on groupthink symptoms. In other words, homogeneity in terms of sex of the group members could affect cohesion, however, as cohesion was controlled in this study this may not have a noticeable effect on the results. The participants were split into 46 groups of three. Participants started by answering two falsified tests supposedly measuring social and problem-solving skills. Upon completion they underwent a training condition in which they were trained to use one of three decision making cues. These cues were used so that in the following stage (completion of a decision-making task), the experimenter could induce conflict by having at least 1 group member utilize a different cue than the rest of the group. The two variables to be manipulated were task-cohesion and social-emotional cohesion. This was done by telling groups that they had performed well on either of the pre-experimental questionnaires for the high conditions or that they had performed poorly for the low conditions. The dependent variable was a self rating of factors influencing group cohesion. Results showed an interaction effect between the social confidence measure (related to social antecedents of groupthink such as the illusion of invulnerability and belief in inherent morality of the group). In particular groups in the high task-cohesive/low social-emotional cohesive condition saw the lowest scores of

social confidence, suggesting a low susceptibility to groupthink. There was also a main effect of social-emotional cohesion such that groups with high social-emotional cohesion had high ratings of social confidence. On the flip side, highly task-cohesive groups showed high task focus, which could counteract the effects of groupthink. The researchers note here that both high social-emotional cohesive groups and high task cohesive groups rated higher confidence in their decisions, but also state that it is likely a different form of confidence with the task cohesive groups acknowledging that individual members might hold conflicting views and opinions. Bernthal & Insko's study is crucial in that it investigates the core aspect of Janis' groupthink model and offers a partial explanation why empirical research of groupthink has produced such mixed results. Apart from differentiating between forms of cohesion, the researchers also acknowledge that the cohesion seen in Janis' case studies as well as most qualitative studies of groupthink might be fundamentally different from what has been replicated by empirical research on the field.

Park (2000) marks yet another attempt to comprehensively test the groupthink model. Park starts by establishing the discrepancy in groupthink research and summarizing all the available research at the time. This was put into a table which is included in the appendix (Figure 3.). The sample used in the study was comprised of 256 students at the University of Pittsburgh. The participants underwent random assignment and were put into 64 groups of four. The groups were given both verbal and written instructions (pertaining to their role and condition) and were then given 50 minutes to

carry out a decision making task. The task was based on a real life story published in the Wall Street Journal concerning executives at a nuclear energy company. In order to test the sharing of information, specific pieces of information were only given to group members in certain roles. A monetary incentive for performance was advertised to the groups in order to encourage participation, however Park acknowledges that this could've also affected the groupthink process by encouraging better decision making procedures. Participants were encouraged act as themselves rather than play a role. All the factors present in the groupthink model were measured using a number of methods ranging from self-report measures to content analyses of video recordings. Park paid particular attention to the causal relationships between factors. Results supported the causal sequence of the model. Antecedents showed strongest effects on the symptoms, the symptoms showed strongest effects on defects of decision making and defects of decision making showed strong effects on decision quality. However, it must also be noted that the relationship between the antecedents and the defects of decision making were also significant, which is not supportive of the model's causal sequence. A deeper look into the relationships reveals that only seven individual factors have significant relationships (group cohesiveness, style of leadership, lack of procedure, low self esteem, illusion of invulnerability, illusion of inherent group morality and failure to examine risks). The antecedent conditions saw the most support, with all conditions having significant relationships. However on two symptoms and one defect were statistically significant. Park acknowledges that there were severe limitations in this study. The most glaring one is the failure to control group cohesion. All groups used in this study were ad

hoc, thereby failing to meet the cardinal antecedent for groupthink. Park says that the study is still valid as this is typical of decision making groups in the real world, however it is not sufficient when testing the theory of groupthink. Regardless there is still merit to this study in it's review of existing research as well as its implications for future research.

Criticism of the Groupthink Model

As with any theory, the groupthink model has had its fair share of detractors. Longley and Pruitt (1980) commented on the dearth of empirical support and recommended a clearer definition of the model. McCauley (1989) detracted from the importance janis placed on cohesiveness and suggested compliance as a mechanism instead. Some of the most comprehensive yet scathing criticisms of groupthink have come from Fuller & Aldag (1993, 1998).

Fuller & Aldag (1993) takes a critical look at the groupthink proposition. Noting the evidence provided by empirical, case and conceptual studies, they comment that primary support for the model has come from retrospective case studies. They also note the hodge-podge nature of empirical groupthink research; the selection of variables that researchers use seems rather arbitrary. General support for groupthink is spotty at best and difficult to determine due to the lack of research. It is also noted that no study has adequately and fully tested the groupthink model. According to their findings, the most consistently supported variable in the model is the antecedent condition of leadership style. Fuller and Aldag in particular criticize the use of only "fiascoes" in groupthink research. They see this as allowing a dangerous generalization of the phenomenon. They also summarize all the suggested additions to the groupthink model that have

been seen in research. These are power of the leader (Flowers, 1977), nature of the task (Callaway & Esser, 1984) and stage of group development (Leana, 1985). They incorporate these factors as well as others taken from related research to create the General Group Problem Solving Model (GGPS). It is not the purpose of this paper to investigate said model but a diagram detailing the model has been included in the appendix (Figure 2.) for reference purposes. They state that this model is far more suited to investigating group decision making than Janis' (1972,1982) Groupthink Model. Fuller & Aldag suggest research into their GGPS model, but also note that it may be too complex (an issue also seen with Groupthink). They also note that longitudinal studies could be a useful tool in this area.

Fuller & Aldag (1998) put forth a far more scathing review of groupthink. The authors literally demonize groupthink, regaling readers with a fable of the mythical monster "gruffthing". Using this fabricated folk tale, they illustrate their frustrations with the preoccupation of the research community with the groupthink model. In particular they note that tendency for researchers to see any factor of the groupthink model as indicative of groupthink being responsible for bad decisions. It should be noted here that Janis (1972, 1982) did note that groupthink was only one of many possible mechanisms that could lead to bad decision making. Fuller & Aldag once again bring up the dearth of evidence supporting the model and lament its presence in the foreground of group decision making literature. They even note that it has seeped into daily life, with numerous news articles being written about the application of groupthink to various situations. In particular they state no evidence for the "strong" or strict model of groupthink and state that this had led to researchers testing "weak" versions and therefore finding partial support. Several other criticisms they present range from an over reliance on concurrence seeking, which they see as merely being adopted by the groupthink model from previous

research, to the assertion that groupthink is antecedent to poor decision making, which they see as due to the fact that the model includes "all the bad things" that could lead to faulty decision making. They note that groupthink has succeeded in stimulating group decision making research but has cost numerous resources which could have been devoted to the study of processes outside the groupthink model.

Overall, Fuller & Aldag do bring up some notable and valid criticism, but oftentimes seem to get too caught up in their frustration with the groupthink model. In particular they note that warnings to improve research in the area have been ignored. This seems to be the case as the community seems to have forgotten the most key component of the groupthink model according to Janis (1972, 1982), cohesion.

Why Empirical Groupthink Research has Failed

As noted by Janis (1982, 1972), cohesion among the group members is the cardinal antecedent condition of groupthink. Without it, groupthink cannot occur. The rest of the factors are merely additive and probabilistic in that they need not be present but increase the likelihood of groupthink when they are. Almost all empirical studies of groupthink acknowledge the role played by cohesion, but none have been able to replicate as per the groupthink model.

It is typical in groupthink research for cohesion to be manipulated as a variable. Typically this is done by simply telling the participants in high cohesion conditions that they are a good "fit". This can be seen in studies such as Callaway & Esser (1984), Turner et al (1992), Courtright

(1978) and Flowers (1977). Others have attempted to control for cohesion in order to test other factors of the model. This includes studies such as Callaway, Marriott & Esser (1985). Most strangely, some, such as Park (2000), have even just ignored cohesion all together. Overall, not a single study has come close to replicating the form of cohesion described by Janis (1972, 1982) in his case studies. The cohesion in the groups in Janis' case study, as well as in other case studies like Hensley & Griffin (1984), was based on bonds formed over years of working together. The members of these groups knew each other on a far more personal level in addition to having worked together for far longer. This cohesion cannot be replicated by merely telling participants that they were a good match. The closest an empirical study has gotten to replicating this level of cohesion has been in Leana (1985). The use of groups that had been working together for a semester was far closer to being cohesive than the ad hoc groups used in other studies. A similar technique was used by Moorhead & Montanari (1986) as well. On average both these studies have shown somewhat stronger support for the model than others, suggesting that this could possibly be the key to providing empirical support for the groupthink model. It should also be noted that Bernthal & Insko (1993) distinction between task-oriented and social-emotional cohesion could factor into the the role of cohesion.

Suggestions for Future Research

Clearly, it is necessary to accurately portray the type of cohesion Janis (1982,1972) used in his model in order to attempt to empirically support the groupthink model. One possible solution to this would be to use groups which had existed over a longer period of time in the high cohesion condition. These participants could be formed using decision making group that have

existed for at least a 3 year period. Applying this to the high cohesion condition in a replication of Moorhead & Montanari (1986) could be highly beneficial to the future of groupthink research. Such a study is briefly detailed below.

As stated before, Moorhead & Montanari (1986) represents one of the most comprehensive tests of groupthink thus far. Park (2000) could also be chosen, but falls significantly short due to its use of only ad hoc groups. In particular, the comprehensive testing procedure used by Moorhead & Montanari is detailed and expanded in their later publication, Moorhead & Montanari (1989). This article details the creation of the Groupthink Assessment Inventory. The inventory was created by the researchers for the purpose of providing a complete measure of the entire groupthink model. Most of the scales were developed from scratch as there were no existing scales available for many of the groupthink factors at the time. A validation study was carried out in order to ensure the model was robust. Factor analysis of the scales measuring each variable showed that numerous variables were correlated and therefore they were distilled into a more testable yet comprehensive measure of groupthink. Therefore the Groupthink Assessment Inventory is not a perfect match to the original groupthink model, but can still provide insight into its functioning. In particular, several symptoms and defects were combined within their respective categories to form new factors. A table detailing the factors is included in the appendix. The Groupthink Assessment Inventory was developed in a slightly more rudimentary form for use in Moorhead & Montanari (1986) and therefore does not need much modification in order to be utilized. The most important factor would be the use of long-term groups as opposed to the semester long workgroups used in the study. To accurately represent a situation similar to what Janis theorized, a simulation like the "Tycoon" game used by Gladstein & Reilly (1985) could be used. Expected results from a path analysis would be a confirmation of

the causal sequence seen in the groupthink model, notably a significant effect of the antecedent conditions on the symptoms of groupthink and a significant effect of the symptoms on the defects in decision making. Furthermore, the directional relationships between the factors would be closer to those put forth in the model. Antecedent conditions should be positively linked to symptoms which should be positively linked to the defects in decision making.

As noted by Fuller & Aldag (1993), a longitudinal study could also be utilized for the study of groupthink. A possibility for this could be applying the same study detailed above, based on Moorhead & Montanari (1986), longitudinally to a set of decision making groups. This might allow us to witness how the presence of groupthink factors could change as the groups become more and more cohesive, it would also allow for control of extraneous variables.

It is clear that the field of groupthink has a long way to go. It is my hope that researchers take note of the issues described above in order to more conclusively test Janis' (1972, 1982) groupthink model. Until then criticism of the groupthink model, especially that concerning the lack of empirical evidence, must be taken with a grain of salt.

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Appendix

SCHEMATIC OF THE GROUPTHINK MODEL

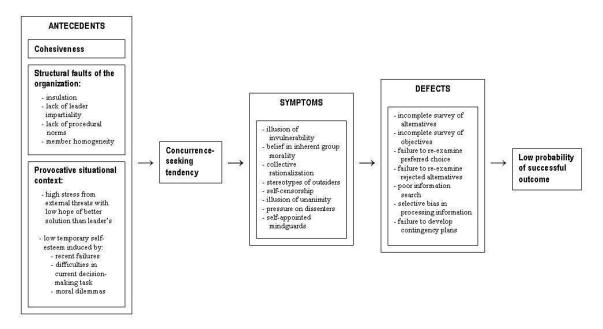


Figure 1. The Revised Groupthink Model. Adapted from *Groupthink* (p. 244), by I. L. Janis, 1982, Boston: Houghton Mifflin, Copyright 1982 by Houghton Mifflin Company

ANTECEDENTS Decision characteristics: - importance - time pressure **DECISION PROCESS** - structure procedural requirements task characteristics CHARACTERISTICS **EMERGENT GROUP** Problem identification: OUTCOMES - predecisional information search CHARACTERISTICS Group structure: survey of objectives - cohesiveness Perceptions of: explicit problem definition Decision: - group vulnerability - inherent group - homogeneity - insulation - acceptance Alternative generation: adherence - number of alternatives morality - member unanimity - implementation success - leader impartiality - quality of alternatives - quality - leader power - history of group - probability of future - opposing groups Evaluation and choice: Political: interaction - stage of group development Processes: information processing quality - future motivation of - initial selection source - response to negative leader - emergence of preferred - future motivation of group - future use of group - group type feedback - treatment of alternative group decision rule dissenters - use of mindguards Decision-making context: timing of convergence - self censorship - re-examination of preferred and - use of mindguards Affective: - organizational political rejected alternatives - satisfaction with leader final solution source satisfaction with group - member political motives development of contingency process satisfaction with decision - prior discussion of issue plans prior goal attainment gathering of control-related goal definition information

SCHEMATIC OF THE GGPS-MODEL

Figure 2. The GGPS Model. Adapted from "Beyond Fiasco: A reappraisal of the groupthink phenomenon and a new model of group decision processes", by R. J. Aldag and S. R. Fuller, 1993, *Psychological Bulletin*, 113(3), p. 544, Copyright 1993 by American Psychological Association.

degree of stress from external threat

Author (year)	Methodology (subject)	Result*
Raven (1974)	Qualitative case study (1 case)	Support
Huseman and Driver (1979)	Qualitative case study (3 cases)	Support
Manz and Sims (1982)	Qualitative case study (3 cases)	Support
Smith (1984)	Qualitative case study (1 case)	Support
Hensley and Griffin (1986)	Qualitative case study (1 case)	Support
Herek et al. (1987)	Qualitative case study (19 cases)	Partial support
Esser and Lindoerfer (1989)	Quantitative case study (1 case)	Support
McCauley (1989)	Qualitative case study (7 cases)	No support
Hart (1990) (unpublished doctoral dissertation)	Comparative case study (2 cases)	No support
Moorhead et al. (1991)	Qualitative case study (1 case)	Support
Neck and Moorhead (1992)	Qualitative case study (1 case)	Partial support
Kramer (1998)	Qualitative case study (2 cases)	No support
Raven (1998)	Qualitative case study (2 cases)	Partial support
Tetlock (1979)	Content analysis	Partial support (2/3)†
Tetlock et al. (1992)	GDQS: case + content analysis (10 cases)	Support
Tetlock et al. (1992)	GDQS: LISREL	Partial support
Peterson et al. (1998)	GDQ (7 cases × 2 historical junctures)	Partial support
Flowers (1977)	Experiment: 2 × 2 design (120 students)	Partial support (1/3)
Courtright (1978)	Experiment: 2 × 3 design (96 students)	Partial support (1/6)
Foder and Smith (1982)	Experiment: 2 × 2 design (80 students)	Partial support (1/3)
Callaway and Esser (1984)	Experiment: 2 × 2 design (128 students)	Partial support (3/9)
Callaway et al. (1985)	Experiment: 2 × 2 design (112 students)	No support
Leana (1985)	Experiment: 2 × 2 design (208 students)	Partial support (1/3)
Moorhead and Montanari (1986)	Experiment: factor and path (45 teams)	No support
Kroon et al. (1991)	Experiment 1 × 2 design (140 students)	- *
Kroon et al. (1992)	Experiment: 2 × 2 design (171 students)	-‡
Turner et al. (1992)	Experiment I: 2 × 2 design (180 students)	Partial support
Turner et al. (1992)	Experiment II: 1 × 2 design (72 students)	Partial support
Turner et al. (1992)	Experiment III: 1 × 3 design (123 students)	Partial support
Bernthal and Insko (1993)	Experiment: 2 × 2 design (138 students)	Partial support (1/3)

^{*} Results in support, partial, or no support of Janis's groupthink model.

Figure 3. Review of Groupthink Research. Reprinted from "A Comprehensive Empirical Investigation of the Relationships among Variables of the Groupthink Model", by W. Park, 2000, *Journal of Organizational Behavior*, 21(8), p. 874, Copyright 2000 by John Wiley and Sons, Ltd.

[†] Supported in two out of three analysed.

These studies were not purported to 'test' the groupthink model.