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## Influence and Persuasion in Small Groups

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Groups are an important fact of life., Almost every decision that you make involves other people, whether at home, at work or in social groups. Whether we think of juries coming to a verdict or Cabinet meetings that decide on war or peace, groups are important vehicles for decisions. Thus, the ways in which people influence one another in groups becomes paramount in our understanding of why some decisions are reached.

In this chapter, we will be covering a myriad of influence processes that occur when we are in the presence of, or interacting with, other people. We will be taking a particular perspective on the research literature (for others, see especially, Davis, 1973 ; McGrath, 1984 Brown, 2000). We will start with the simple situation where people are expressing viewpoints in groups. We will then move to situations where people are interacting and trying to persuade one another. Repeatedly, we will confront a basic tenet that runs throughout this chapter. People in groups tend towards agreement. We are not content to have positions that differ; there is always a strain to find which position is correct or appropriate. From this perspective, the different influence processes that we will consider differ mainly in where the consensus is found. Sometimes it is the position favored by the majority, termed conformity. Sometimes, it is the position favored by the minority, termed minority influence. Sometimes we will find that it is more extreme than the average of the individuals; this is termed polarization. We will then explore when these processes are assets versus liabilities when we consider the quality of performance and decision making, the likelihood that “truth will prevail”.

### MAJORITIES and CONVERGENT THINKING

#### I. CONFORMITY; The Power of Numbers

##### A. The early studies:

While most of us think we are quite independent, it is very disconcerting to realize how important sheer numbers are when it comes to influence. The power of peers and, in particular, the power of a majority is one of the most well established findings in Social Psychology. It is so powerful that, faced with a majority of others who agree on a particular attitude or judgment, we are likely to adopt the majority judgment whether their judgment is right or wrong. In a now classical study by Solomon Asch (1956), people came to an experiment in groups of 5 to 7. Unknown to the “real” subject, however, the other 4 to 6 people were confederates of the experiment. They were hired to agree on a judgment that was wrong.

In this experiment, the group was shown a series of slides as illustrated in Figure 1. They saw a “standard” line and were asked to name which of the 3 comparison lines was equal to the standard. This task is easy. When people were alone, they were correct. In Figure 1, that answer is “2”. They knew which line was equal. However, in the experimental setting, the “real” subject

was last; he heard the judgments of the other 4 to 6 people in order. And, one by one, they all agreed on the same answer. The problem is their answer was incorrect. For example, all would say “1” was the line equivalent to the standard. What happened? Did people laugh out loud, knowing those other people were incorrect? Did they feel superior while they maintained what was in fact the correct position? No. Fully 1/3 of the responses from the naïve subjects were in agreement with the majority; they said “1”. Further, 75% of the people agreed with the erroneous majority on at least one of the trials. Even when using perceptual items, e.g. length of lines, people will abdicate the information from their own senses and adopt even an erroneous majority view. Furthermore, this is not a single study. Literally hundreds of studies have documented this phenomenon (Allen, 1965; Levine, 1989). There is evidence of this phenomenon in many different countries being even stronger in Asian cultures which are assumed to be more concerned with harmony. (Bond and Smith, 1996). The question is Why?

--Figure 1 about here--

“Why” people follow the majority, right or wrong, appears to be based on two primary reasons. One is an assumption that “truth lies in numbers” known as informational influence. The other is a concern about being accepted and, especially about not being rejected; this is known as normative influence (Deutsch and Gerard, 1955). Subjects faced with a majority that disagreed with them did not feel superior and they were not laughing. They assumed they were in error because “forty million Frenchman can’t be wrong”. They assume that truth lies in numbers. Further, they were fearful about “sticking out like a sore thumb”, about being ridiculed.

You might ask yourself whether this fear is in their heads. Would they be rejected for maintaining a dissenting minority position, even when they are correct? While we might wish this were not true, research shows quite clearly that a person who maintains a dissenting viewpoint, even when they are right, risks possible rejection from their group. In an early study by Schachter (1951), people were discussing a case about a juvenile delinquent and were asked to determine how best to deal with the troubled adolescent. The scale ranged from being very “love oriented” to being very “punishment oriented”. The story of this delinquent was written very sympathetically; most people felt that a 2 or 3 on the 7 point scale was appropriate. These were judgments that the boy should be treated mostly with love and only punished when needed. However, in this group, there was a confederate. This person consistently maintained the position of “7”, a very punishment oriented position. What happened? He received the most communication, aimed at changing his opinion. When such persuasion was unsuccessful, the person was disliked, made to feel unwelcome, was not nominated to any leadership positions and was essentially rejected (Schachter, 1951). These findings were even stronger if the group was important to the individuals, that is, if the group was highly “cohesive”. However, the effect was also found in temporary groups with little at stake in the issue.

At this point, we begin to realize that majorities have a great deal of power. Believing that truth lies in numbers, we begin to feel that, if we hold a differing viewpoint, it must mean that we are in error, not the majority. Further, we want to belong, to be accepted. This is a source of great power for the majority. They can (and will) reject us if we maintain a differing viewpoint. From this perspective, it becomes easy to understand why many people will publicly agree with a majority. At least, one can understand why one might not voice a dissenting viewpoint or certainly not maintain it in the face of such pressure and implied rejection. At best, many of us remain silent.

When Asch interviewed his subjects after his classical experiment, he found that many people, when faced with a majority had such a strong tendency to agree that they were not even aware

that their position actually differed from the majority. A few people seemed quite convinced that they “independently” agreed with the majority. A few people were aware that their judgment differed from the others but they publicly conformed to the majority anyway. However, most people became confused about what was the correct judgment. They made a “judgment call”. They assumed the majority must be correct and, further, they were motivated to assume this since it meant they could be part of the majority –part of the group.

## B. Increasing or Decreasing Conformity

Since the original study and the variants that followed, we have become aware of some of the variables that make people more or less likely to conform. For example, consider the size of the majority. Does a majority of 10 have more influence than a majority of 9? Or is 10 at least more influential than a majority of 4? It turns out that a majority of 3 has maximum influence; larger majorities do not have more influence. Thus, if you are faced with one person who differs from you, conformity is quite low; if there are two in agreement against you, conformity increases; at 3, your conformity is maximum (33% in the original study). At 4,5,6 –even up to 15, there are essentially no further increases in conformity. If you are going to conform, 3 is enough (Asch,1956;Stang.1976).

Other variables that increase the likelihood of conformity are difficulty of the task, ambiguity of the stimulus and uncertainty on the part of the subject. You can create these conditions in many ways but to illustrate from the original Asch study, one could make the lines closer together and thus make the task more ambiguous and more difficult. One could give you information that you were not very good at this task. All of these variables undermine the confidence of the individual in his or her own judgment and have been found to increase conformity (see generally, Allen, 1965; Levine, 1989). Others have pointed to the importance of anonymity for reducing conformity. If normative influence is one reason why people conform, you can reduce such fear of rejection by having the judgments given anonymously. Studies comparing face to face groups with those permitting anonymous answers have shown substantial reduction in conformity when anonymity is permitted (Deutsch and Gerard, 1955 ).

Some have speculated that conformity would be less when the topic is important to the individual. Experimental studies on this have been mixed, some showing more conformity and some less conformity when the issue is important (Vaughan and Mangan, 1963; Krech, Crutchfield,and Ballachey ,1962). Naturalistic studies, however, show the power of the majority even when the issue is very important. Consider jury trials. Kalven and Zeisel (1966) studied actual juries and looked at the relationship between votes on the “first ballot” and the final verdict. If a majority of 7 to 11 votes favored “guilty” (with 1-5 favoring “not guilty”), guilty was the final verdict in 86% of the trials. If a majority of 7 to 11 favored “not guilty”, the final verdict was “not guilty” in 91% of the trials. There were 225 trials studied for this comparison.

--Table 1 about here--

## C: The liberating value of dissent: why it is often silenced

One of the most important variables for reducing conformity is the presence of a dissenter. We already know how difficult it is to dissent, to express a position different from the majority. But what happens when a person does dissent? We find that the others are liberated. Thus, if you are in a group where a majority differs from you but there is ONE person who agrees with you, you are not likely to conform. In fact, an experiment on this showed that the 33% conformity when alone dropped to 5% when the person had an ally. You might assume that this

happens because the ally gives you confidence in your own judgment. However, and this is even more interesting, it appears to be the fact that there is dissent from the majority, not that you have an ally supporting your own position. If there is a person who disagrees both with you and with the majority, conformity is lowered. Thus, if that person is intermediate between you and the majority or if he is even more extreme than the majority, conformity is less (Asch, 1955). In somewhat of an amusing variant on this issue, Allen and Levine (1971) had an ally with normal or really poor vision –with typecast “thick glasses”. In this study of visual items, the ally with normal vision caused a significant reduction in conformity. However, even the ally with very poor vision significantly reduced conformity; conformity was intermediate between “no ally” and one with normal vision. In all of these studies, however, it is clear that a dissenter is enough to liberate you to say what you believe, to say what you see. He can be of questionable judgment, disagree completely with you as well as the majority and still has value in that his dissent liberates you to express your authentic views.

The fact that dissent is such a powerful antidote to conformity is one reason why many groups and organizations –even cults—make sure that dissent is silenced. Many experimental studies show that dissenters are either “persuaded” or “rejected” (see Levine, 1989). Many corporations, especially those that are very profitable, go to great lengths to have cohesion and corporate cultures that eject dissent “like a virus”(Collins and Porras, 1994). They recruit people who will “fit” the company norms (O’Reilly and Chatman, 1996); they socialize them; they make sure their friends and colleagues are all in agreement; and they punish and reject dissent (see Nemeth, 1997).

There are clearly researchers who would argue that “fit”, cohesion and high morale are very desirable and, as such, uniformity to the group’s beliefs and goals is important. Further, there is substantial research showing that cohesion is linked to performance (Mullen, Anthony, Salas, and Driskell, 1994). People work harder and faster when they are in agreement. Those arguing for these positive elements generally do not use the term “conformity” which has the negative connotation of being “thoughtless” and possibly agreeing with error. Rather, one hears terms such as “team player”. The bottom line, though, is that both characterize movement to the majority position. If it is a “good” or “useful” position, that might be beneficial and very efficient; if it is in error, the consequences can be disastrous. The problem is that people tend to follow and agree with majority judgments whether they are right or wrong. However, there is a powerful and more insidious aspect to this majority influence.

#### D. Majorities induce convergent thinking:

The problems associated with cohesive and uniform majorities are greater than the simple movement to their position. Research shows that majorities not only shape judgments and behavior but they also shape the ways in which individuals think. We now have numerous studies (Nemeth, 1995) showing that, when faced with a majority view that differs from their own, people not only adopt the majority position but they convince themselves of the truth of that position by considering the issue only from the majority perspective. They try to understand why the majority takes the position it does and look at it almost exclusively from their point of view. For example, faced with a majority, people search for information in a biased manner. They primarily read information that explains, justifies and corroborates the majority position. (Nemeth and Rogers, 1986).

In problem solving situations as well, people tend to adopt the majority strategy for solving problems to the exclusion of other strategies. To illustrate this, one study (Nemeth and Kwan, 1987) showed individuals in groups of 4 a series of 5 letter strings such as PATren. They

were asked to name the first 3 letter word they noticed. Since the slide was only shown for a fraction of a second, everyone first noticed “pat”, the word formed by the capital letters from left to right. After a series of 5 such slides, they were given information as to the judgments of the 4 individuals. In one condition (the majority condition), they were led to believe that the other 3 people first noticed “tap” (the word formed by the backward sequencing of the capital letters and 1 person first noticed “pat” (they themselves). The feedback for this slide would be “tap, tap, tap, pat”. The same pattern was given for all 5 slides. Thus each person believed that the majority of 3 differed from themselves and that the majority position consistently was the backward sequencing of letters. After this experimental feedback, they were given a series of letter strings and asked to name all the words they could form from the letters.

If we take an example of a letter string such as PITbna, they could form words using a forward sequencing e.g. pit, pin, it; they could form words using a backward sequencing of letters e.g. tip, nip, ant; they could form words using a mixed sequencing of letters e.g. tin, bat, nap, tan, tap, bin. The findings showed that people in this condition tended to over-utilize the majority strategy. Compared to a control group, they found more words using the backward sequencing of letters but this was at the expense of finding words using the forward or mixed sequencing. Exposure to a consistent majority led to an adoption of the majority point of view; however, they were less able to find solutions they would have considered had they not been exposed to the majority.

The conclusion from these types of studies is that majorities not only have power to get us to adopt their position publicly. They change the way we think about an issue or problem such that we consider it from their perspective and tend not to see (or perhaps not want to see) alternatives. In some sense, we “brainwash” ourselves by finding and focusing on information consistent with the majority view.

## II. MINORITIES and INNOVATION:

As we discussed in the section on conformity, dissent has value, in part, due to its liberating effects. There, we found that dissenters, right or wrong, liberate people to think in different ways, to say what they believe. In the next section, we will explore the possibility that such minority views can actually prevail and, more importantly, that, even when they do not “win”, they serve the quality of the group decision making by stimulating a consideration of more information and more options.

### A: Minority Influence:

Most of the research literature on influence in groups tends to emphasize the importance and power of majorities and of status. Influence is often seen as flowing from the many to the few, from the strong to the weak. It is clear that there are advantages to being the “many” and having power and status. However, these cannot be the only mechanisms for influence. If one wants to understand social change rather than social control, one must consider the possibility that minority views can be influential. How do new ideas ever get adopted, how do societies change?

#### The early studies:

In the late ‘60s and early ‘70s, Moscovici and Faucheux (1972) asserted that minorities do exercise influence but that the way in which this influence is exerted is quite different than that of majorities. Minority positions do not have the sheer numbers to cause people to accept their

position as information about reality; nor to cause fear of rejection by them. In fact, since people assume that truth lies in numbers, they are prone to assume that the minority is in error. Further, rather than fear rejection by the minority, a good deal of recent research documents the fact that people are motivated NOT to adopt the minority position. They do not want to identify with the majority nor are they anxious to be on the receiving end of the majority's "persuasion" or rejection (Mugny, 1982).

In attempting to demonstrate the potential influence of minorities, Moscovici, Lage and Naffrechoux (1969) conducted an experiment which was essentially the reverse of the conformity studies. They had people in groups of 6 judge the color of a series of slides and to indicate its perceived brightness on a 5 point scale. All the slides were in fact the same hue—a clear "blue". Different perceptions of brightness were accomplished by the use of neutral density filters. In this study, there were 4 naïve subjects; 2 were paid confederates. In one condition (consistent), the two confederates judged each slide to be "green". In a second condition, the confederates called the slides "green" on 2/3 of the trials and "blue" on 1/3 of the trials (inconsistent). In a third "control" condition, there was no dissenter.

You might ask yourself whether anyone would really judge blue slides to be green because a minority of 2 in your group of 6 thought they were "green". Further, wouldn't they have more influence if they were correct (and agreed with you and the majority) on at least 1/3 of the trials? The results showed that: (1) People alone did not make mistakes; they clearly saw the color as "blue" (2) Subjects in the consistent condition reported the slides to be "green" on 8.42% of the trials; (3) Subjects in the inconsistent condition showed no influence; they called the slides "blue" as did the control. Thus, there is evidence that people might adopt the minority position.

The influence in the consistent condition, while considerably less than that found with majorities, is still significantly greater than zero. However, of interest is the fact that it was the consistent minority, that is, those who repeatedly called the slides "green" who had this influence. When they were inconsistent—even though they were correct on those trials—they had no influence. What we learned from this early study is that a minority, in order to be persuasive, must be consistent over time in their position. If they compromise or show inconsistency, they will have no impact. In addition, there was another intriguing finding in this early study.

After the public expression of color judgments, Moscovici et al asked the subjects individually to sort a series of "blue-green" stimuli into two piles: "blue" or "green". This is akin to taking a series of blue-green squares from a paint store and asking people whether each is blue or green. There is an actual physical continuum and, further, people are in fair agreement about the point at which the colors appear to transition from blue to green. What is interesting is that the individuals who had been exposed to the 2 confederates who judged blue slides to be "green" (consistent condition) were influenced even more than their public adoption of the minority position would suggest. Over half the individuals shifted the point at which stimuli were judged to be green rather than blue. They called slides "green" when a control group would call them "blue".

There are two important points to be made from this study. First, consistency over time is important to observe minority influence. When the minority was "inconsistent", even when this meant they were actually correct more often, their influence was negligible. Compromise to the "blue" position which was both true and that held by the majority did not enhance their credibility nor add to their influence. It is when the minority position is held consistently—even if wrong—that it exerts influence. The consistency (and a correspondent belief that the minority has

conviction) provides the basis for movement to that position. At least, without it, the minority has essentially no influence.

The second point is that influence is even greater at the private or indirect level than at the public or manifest level when it comes to minority influence. Public adoption of “green” was small (though significant). However, the change in the categorization of what is “blue” or “green” was substantially greater. Unlike majority influence which can effect adoption of its position publicly even when people don’t believe it, minorities have difficulty in effecting public change. To only look at public adoption of the position would be to underestimate the influence of the minority. Often, people privately shift their position towards that of the minority.

We saw this private movement in a simulated jury decision making study (Nemeth and Wachtler, 1974). In this study, we had one person (a confederate) who maintained a position of low compensation in a personal injury case relative to the majority who believed the award should be much higher. In this study, he either chose the head seat or a side seat at the rectangular table or he was assigned to a head or side seat. In no condition did he get the others to agree with him on the verdict. However, there was substantial evidence of private attitude change. Primarily when he chose the head seat, a sign of confidence, people showed considerable movement when asked after the deliberation. They reported being more in agreement with his position. On an entirely new personal injury case, they gave substantially less money. This study also demonstrated the importance of “style” and of actions that enhance the perception of confidence such as taking the head seat. Such confidence helps the minority in its attempt at persuasion.

Later refinements:

Research on minority influence since the original study has been considerable (Wood et al, 1994) and, interestingly, these main points have been replicated and extended. Repeatedly we find that minorities must be consistent in their position though the perception of consistency is more subtle than simple repetition of response (see Nemeth, Swedlund and Kanki, 1974). Further, there is substantial work on the private and latent effects of minority influence (see Mugny, 1982; Forgas and Williams 2001). People have been found to adopt minority opinions when asked privately or if asked at a later time or if asked in a different form (Mugny et al., 1995; David and Turner, 2001).

Moscovici (1985) argued that the reason for the above findings is that majorities induce **compliance**, that is, early and direct adoption of the majority position without private change. By contrast, minorities induce **conversion**, that is, private acceptance. The evidence, however, appears more complicated. Studies show that majorities do more than simply induce compliance. There is evidence of careful processing of the majority message as well as private attitude change to the majority position (Baker and Petty, 1994; Mackie, 1987). As mentioned previously, there is also evidence that majorities do more than gain adoption of their position. They induce thinking but it is biased thinking; it takes the perspective of the majority (Nemeth, 1995; 1997).

There is evidence, as hypothesized, that minorities induce “conversion”, that is, private change. In some studies, people do adopt the minority position but in private. However, much of the research shows that private change is often not to the minority position itself but is rather, deflected onto different but related attitudes (Mugny, 1982; Crano, 2000). Perez and Mugny (1987), for example, found that subjects did not change their opinions to the minority pro-abortion position; they did show attitude change on contraception. These researchers have pointed out that the reason for this is that people are motivated to dissociate themselves from the minority source for fear of inviting ridicule and rejection.

## B. Minorities as “stimulators” of divergent thinking:

Another line of research has argued that consistent minority opinions are important, not only because they sometimes “persuade” or even because they liberate others to be independent. Consistent minority viewpoints also stimulate divergent thinking about the issue; they stimulate a consideration of multiple perspectives, only one of which is that espoused by the minority (Nemeth, 1986; 1997). This is a major “hidden benefit” of minority dissent for it has consequences other than attitude change.

The fact that minority viewpoints stimulate you to consider different perspectives has large practical consequences for the quality of your thinking and decisions. Further, the evidence for this proposition is substantial. For example, there is evidence that individuals exposed to minority dissent search for more information on all sides of the issue (Nemeth and Rogers, 1996). People not only read information on one side of the issue (as they do when faced with a majority); they read on all sides of the issue. There is also evidence that people, faced with dissent, utilize more and better strategies in the service of performance (Nemeth and Kwan, 1987; Frey and Schulz-Hardt, 2001; LeGrenzi, Butera, Mugny and Perez 1991).

To illustrate, remember the Nemeth and Kwan (1987) study described under “conformity” where people were shown a series of letter strings (e.g. PATren) and asked to name the 3 letter word they first noticed. In the “majority” condition described earlier, they were given feedback that the other 3 people first noticed the word formed by the backward sequencing (tap). We found that people follow the majority to the exclusion of other strategies. When asked to find all the words they can from a letter string, they tend to find words formed by a backward sequencing of letters to the detriment of finding them with forward or mixed sequencing. However, there was another condition, a “minority” condition. Here, people were told that 1 person consistently noticed the word formed by backward sequencing. The feedback would be, for example, tap,pat,pat,pat. Now, it was a minority of one in their group that was doing this. In this condition, when people tried to form all the words they could from a new series of letter strings, they formed them using ALL possible strategies. They found words with forward, backward and mixed sequencing. As a result, they found more words overall than did people in the majority condition or the control .

---Insert Table 2 about here---

The stimulation of divergent thinking –multiple perspectives—has been found in other realms as well. We find that exposure to minority views stimulates people to look more carefully at a stimulus array and thus to detect solutions that otherwise would have gone undetected (Nemeth and Wachtler, 1983). Even Supreme Court justices have been found to write their opinions in more “cognitively complex” ways when there is a dissenting viewpoint. If the Justices all agree, the Court opinion is relatively simple and takes one perspective. When there is dissent, the majority Justices write the majority opinion from more than one perspective; they, like our subjects in the experiments, consider more alternatives and options (Gruenfeld, 1995). This finding of more divergent thinking when exposed to minority dissent has been found in other studies as well (Martin, 1996; DeDreu and DeVries 1996; Mucchi-Faina, Volpato, 1991)

Finally, there is evidence of more creativity when exposed to a minority viewpoint. In general, divergent thinking is related to creativity. To illustrate, one creativity task might ask you for all the “uses” for a brick. You could think of “build a house”, “build a bridge”, “build a

road". This would be 3 ideas; however, all are in the same category of "building". Alternatively, you could come up with "build a house", "use as a doorstep", "use as a missile". This would also be 3 ideas but it would be in three different categories. The "fluency" for both examples is three. However, the "flexibility", the divergent thinking, is higher in the second than in the first example. You have considered more categories. In general; people who exhibit this kind of thinking are more creative.

One of the elements of creativity is originality and a simple task that illustrates this is the word association task. For example, if I ask you to say the very first word that comes to mind when I say the word "blue", you would say \_\_\_\_\_? A very common response would be "green" or "sky". A much less common response would be "jeans" or "jazz". There is actually research showing the probability of a given response to different words so that we have an objective indicator of originality or "uniqueness" of association.

In an experimental study, originality of thought was studied as a consequence of exposure to majority or minority influence (Nemeth and Kwan, 1985). People were exposed either to a majority or a minority opinion that blue slides were "green". They then were asked for 7 associations to the words "blue" and "green". This study showed that those exposed to a minority viewpoint had significantly more original associations than a control group and also more original associations than those exposed to a majority viewpoint. In fact, those exposed to the majority showed even less originality than the control subjects.

---See Table 3---

## GROUP DECISION MAKING; GROUPTHINK AND POLARIZATION

In the preceding sections, we have considered the importance of being exposed to differing viewpoints and the critical differences between influence exerted by a majority versus a minority of individuals in a "group" In most of those studies, the person is aware of the opinion difference but there is no **explicit** attempt to change his or her opinion. In the sections below, we will consider influence processes when groups actually make decisions. We will look for some of the same principles as noted above in an attempt to understand why group decision making can be of high or poor quality. For example, the majority in an interacting group does not just state its opinion; it creates pressure on the "deviants" or holders of a minority view to agree with the majority. A version of this has been recognized in an analysis of some major "fiascoes," truly poor decisions made by Cabinet level groups. It has been given the term "groupthink".

### I. GROUPTHINK

#### A: Cabinet level "fiascoes"

In the early '70s, Janis (1971) tried to understand why some very bad decisions were made by high level advisory groups, especially because they were made by powerful and intelligent men. The Bay of Pigs was one such example. In 1961 then President Kennedy and his advisors came

up with a plan to overthrow Fidel Castro by invading Cuba with 1400 CIA trained Cuban exiles. The plan failed. Nearly all of the invaders were quickly captured or killed; the United States was humiliated; and Cuba became even more closely allied with the USSR. Kennedy himself was reported to ask “how could we have been so stupid”?

One might first think that stupid decisions are made by stupid people., However, Kennedy’s cabinet was hardly stupid. Among others, it had Dean Rusk, former head of the Rockefeller Foundation and then Secretary of State, Robert McNamara former president of Ford Motor Co. and then Secretary of Defense; Robert Kennedy, Attorney General; McGeorge Bundy, Dean of Harvard Letters and Sciences; and Arthur Schlesinger, Harvard historian. Janis’ analysis of many such examples demonstrated a problem in the group decision making process. Janis posited that these groups had several characteristics in common. They had a homogeneity of perspective; there was a strong, directive leader; the group was isolated from contrary views and the group was highly cohesive. Janis hypothesized that such factors leads to a “strain to uniformity” which he termed groupthink.

---Insert Table 4 about here---

The “symptoms” of such groupthink included an illusion of invulnerability, a belief in the inherent morality of one’s own group, stereotyping of the “enemy”, direct pressure on dissenters, and even self-censorship. We are bigger, stronger, better than our enemy; they will give up easily and overthrow a hated government. Opinions to the contrary are obstacles and possibly “unpatriotic”. As a result of such symptoms, the group engages in poor decision making processes. They don’t really consider alternatives; they don’t examine the preferred alternative for its risks and deficits; they don’t survey available information and they show a selective bias in what they do read and consider. Often they don’t even work out contingency plans. In the Bay of Pigs example, the “contingency plan” was to escape by a route involving hundreds of miles across swamp. This was not due to a lack of intellect; all they had to do was consult an Atlas.

B: Research on the groupthink model:

As the preceding indicates, the groupthink model is an ambitious and interesting attempt to capture why historical “fiascoes”, and faulty decision making in general, can occur. Even the term has caught the public imagination, appearing in Webster’s New Collegiate Dictionary within 3 years of the Janis’ (1972) publication.(Turner and Pratkanis, 1998) and is described in almost every textbook.

Research on the model, however, has been sparse. No study has actually investigated all of the antecedents and all of the consequences of the model. There is some support for the model from other case studies (Peterson et al, 1998).Others, however, have pointed out that the important historical examples used by Janis, are due to factors other than a small group making a faulty decision. Kramer (1998), for example, has thoughtfully pointed out the broader political context. In reanalyzing the Bay of Pigs example (with the help of declassified documents and oral histories published since Janis’ formulation), Kramer provides evidence that Kennedy, rather than relying on this one body of advisors, did seek out opinions from others. He himself had reservations about the plan. However, the plan had been inherited from former Pres Eisenhower who presumably understood military actions plus there was misleading intelligence assessments by the CIA. Perhaps most importantly Kennedy himself had campaigned on dealing with the communist “menace” and could suffer political repercussions should his credibility as a leader be

questioned. Thus, it may well be that such political considerations shaped the final decision rather than the poor decision making of one body of advisors.

Experimental research on the groupthink model itself has also been infrequent, the estimate being less than two dozen studies (Turner and Pratkanis, 1998). The link between cohesion and “groupthink”, for example, is mixed. Several studies find no relationship between cohesion and aspects of groupthink (Flowers, 1977; Courtwright, 1978; Fodor and Smith, 1982) while other studies find mixed support (Moorhead and Montanari, 1986). Looking at the studies as a whole, a meta analysis of 9 laboratory studies found support for the link between cohesion and groupthink, especially if one defines cohesion as mutual attraction (Mullen, Anthony, Salas, and Driskell, 1994).

The evidence for the role of directed leadership has received more support. Directive leadership is linked to less information considered, to fewer solutions found, to discouragement of dissent, and to more self censorship (Flowers, 1977; Leana 1985; Moorhead and Montanari 1986) If the leader is strong, states his position at the outset and appears to have a strong preference for a particular outcome, the group is less likely to consider alternative information or solutions.

### C. The contributions

While some criticism of the groupthink model is due to the lack of research and the fact that some studies show only partial support for the hypotheses of the theory, almost everyone agrees that the concept of groupthink has had a major impact on the ways in which we, and the public at large, view decision making. It is also the case that almost no theory can hold up in every situation or that all of its assumed causal links will be supported. One can always find alternative interpretations, some of which may be helpful such as collective optimism or a positive identification with the group (Whyte, 1998; Turner and Pratkanis, 1998). However, the beauty of this model is that, as a whole, it causes us to reflect on why decisions go awry; it gives us criteria for good versus poor decision making processes. It suggests potent antecedent conditions (e.g. directed leadership) that give rise to cognitive biases (e.g. stereotyping the outsider) and to influence processes (e.g. pressuring the dissenter, self censorship) that, by and large, hinder quality decision making.

What is probably most important about the groupthink model is that it makes us aware of the negative effects of attraction, esprit de corps, all being “on the same page”. Too often these are assumed to be positive aspects of a group. Conformists are “team players”; dissenters are “deviant”-- even “unpatriotic”. Additionally, Janis offered some suggestions as how to reduce groupthink --how to improve the quality of group decision making.

### D. The antidotes: dissent and devil’s advocate

After analyzing a number of such “fiascoes” and seeing the patterns that evolve from such “strains to uniformity”, Janis outlined a series of antidotes. His suggestions included: (1) the leader should be impartial and refrain from stating his position at the outset; (2) divide the group into subgroups; (3) get outside experts; (4) set up independent policy planning groups; (5) have a “devil’s advocate”. In our terms, all of these suggestions amount to mechanisms of finding and fostering dissent. We have already reviewed that research showing that dissenters have value in that they liberate others to think and act independently; further they stimulate people to think more about the issue and to think from multiple perspectives. We will now explore the possibility that dissent in interacting groups improves the quality of decision making.

## II. Dissent and Improved Decision Making

The early work that actually led to the formulation that dissent might stimulate divergent thinking and better decision making was a series of studies on jury deliberations (Nemeth, 1977; 1981). What is interesting about juries is that the concern is not who “wins”, either the majority or minority. Rather the emphasis is on how to detect truth-- to convict when the person is “guilty” and to acquit when the person is “not-guilty”. In that initial work, it became clear to us that the presence of a persistent minority changed the nature of the deliberation such that more facts were considered and more “scenarios” of those facts were contemplated. Given the substantial literature arguing that group decisions are better when multiple options are considered (e.g. Janis, 1972; Moorehead, Ference and Neck, 1991), it followed that minorities might stimulate a consideration of more information and more options and, as a result, come up with better, more accurate decisions. The literature we have previously described supports this contention at the individual level.

Research on interacting groups also bears this out. Studies show that groups make better decisions and come up with better solutions when there is a minority viewpoint present and expressed (Van Dyne and Saavedra, 1996). Other studies show that the group’s solutions are also more creative when there is a dissenter (Nemeth, Brown and Rogers, 2001). One might ask whether a devil’s advocate might then be a very good mechanism for achieving stimulation of thought that is divergent and considers more information and more options. Not only might it achieve the quality of thought and decision making but it might do so without the lowered morale or rejection of the dissenter that is consistently found in response to authentic dissent (Turner and Pratkanis, 1997; Levine, 1989). After all, the person is now role-playing and cannot be faulted for having an “erroneous” position. Janis himself, as mentioned previously, suggested this antidote to groupthink.

### A. Devil’s Advocate:

The technique known as devil’s advocate has its origin in a practice initiated by Pope Sixtus V when someone was proposed for beatification or canonization. A “promoter of the faith,” was assigned to critically examine the life and miracles of the individual with an emphasis on the “negative”. The assumption was that the Church was less likely to make an error if such facts were fully explored prior to the decision. Subsequent versions of this technique involve assigning an individual to critique the preferred alternative; the assumption is that this is likely to thwart the overriding desire for consensus and a “rush to judgment”. Further, the hypothesis is that more alternatives will be considered and decision-making will be improved. The optimistic possibility was that one could have it both ways—stimulation of divergent thinking AND high morale with less conflict.

In keeping with such an optimistic possibility, the efficacy of devil’s advocate has rarely been challenged. There is now a sizeable literature on “devil’s advocate” in the Organizational Psychology literature. A number of studies show its potential value, at least relative to a situation where a preferred alternative is provided with no challenge. While there are mixed results in the literature, there has not been much questioning of its likely utility (see generally Schwenk, 1990; Schweiger et al., 1986; Katzenstein, 1996). It does provide an interesting alternative possibility to authentic dissent which has been shown to stimulate thought and improve decision making.

In much of the work on minority dissent, however, conflict is not to be avoided. In fact, it is assumed to play a valuable role. It is because the dissenter is consistent, confident, willing to pay a price that one must consider their position or at least reconsider one's own. Can one so easily "clone" dissent by a role playing technique and achieve the same results? One study now questions whether it is as effective and even points to the possibility that there may be unintended negative consequences from techniques such as a devil's advocate (Nemeth, Connell, Rogers and Brown, 2001).

In this study, groups deliberated a personal injury case. In one condition, there was an authentic dissenter who took a position of low compensation. In a second condition, a person was assigned the role of devil's advocate. In both conditions, the position argued was identical; arguments were exactly the same and given in a round robin sequence. In keeping with the optimistic possibility, our results showed that both conditions led to more thought. However, the direction of those thoughts differed. While authentic dissent stimulated divergent thought (multiple perspectives), the devil's advocate technique stimulated thought that cognitively bolstered the person's initial position. Their thoughts corroborated their initial position; they did not think in terms of the alternative.

In a follow-up study (Nemeth, Brown and Rogers, 2001), the position actually held by the "devil's advocate" was varied. Her actual position was either unknown, the same or the opposite of the position she was asked to role play. One might well assume that, should the person hold the position she is asked to role-play, this would stimulate divergent thought without conflict or rejection. This is logically similar---almost identical---- to authentic dissent in that the person believes the dissenting opinion and they give exactly the same arguments in support of that position. The only difference is whether or not the person is asked to play the devil's advocate.

The findings were both interesting and somewhat surprising. First, the position of the devil's advocate made almost no difference. It didn't matter if their own position was the same or the opposite of the one they were asked to role-play or if it was unknown. None achieved the stimulation of authentic dissent. Most surprising was the comparison between the "consistent" devil's advocate and the authentic dissent conditions. In both of these conditions, the person believed the position and they used exactly the same arguments in defense of that position. The only difference was that one was asked to role play the position. While we cannot answer exactly why this difference occurred, some possibilities seem reasonable. When one role plays a position, there is some ambiguity between what they are saying and what they believe as they are playing a role. Additionally, a devil's advocate is much less likely to be seen as courageous since she has less risk of rejection. It is quite possible that it is because the authentic dissenter manifests both conviction and courage, that people are stimulated to rethink their positions.

### III. POLARIZATION

In the preceding sections, we have seen the emphasis on uniformity or agreement and have found that numbers and status have special advantages, regardless of the correctness of their position. We have also found that breaking up that agreement is sometimes beneficial to the performance and decision making of the group. However, the group still prefers agreement. In this section, we will consider one more process that leads to agreement but, this time, it is around a position that is more extreme than the average member's position. The research on this very

interesting and applicable phenomenon started with studies that illustrated the risk taking tendencies of groups relative to individual members.

#### A. The risky shift:

Research on this phenomenon actually began with the observation that people seem to make riskier decisions after a group discussion than they would have made alone (Stoner, 1961). This tendency was labeled the “risky shift.” Early studies (Wallach, Kogan and Bem, 1962) illustrated the phenomenon. Groups of college students were faced with several “choice dilemmas”. An example would be: the President of an American corporation that is about to expand could build a new plant in the US where returns would be moderate or he could build the plant in a foreign country with an unstable political history but where returns would be very high. Another example—perhaps closer to home—is: A captain of a college football team, in the final seconds of a game with their traditional rival, can choose a play almost certain to produce a tie score or a more risky play that would lead to sure victory if successful or sure defeat if not. In other words, do you go for the touchdown to win (or lose) or a field goal to tie? The subjects were asked individually to estimate the **lowest** probability of success they would require before they would take the riskier course of action. What would you choose? Where is the point at which you would forego the higher profits and build on U.S. soil? Or go for the field goal? Would you still build in the foreign country or go for the touchdown if you had only a 4 in 10 chance of succeeding? A 3 in 10 chance? As you can see, the lower the number the more the risk you are willing to take.

After completing the questionnaire, subjects then discussed the issue in groups of five, trying to reach consensus. The results showed that, on most items, the group consensus was riskier than the average of the individuals would have predicted and this “risky shift” persisted even when the individuals were asked after the group discussion. Subsequent studies established the impressive generality of this effect (Pruitt & Teger, 1969). The risky shift was observed among college students across several countries, business school students and even psychiatric clinical teams (Stoner, 1961; Siegel & Zajonc, 1967). Furthermore, risky shifts seemed to occur across a variety of issues as well (Wallach & Kogan, 1965; Wallach, Kogan & Bem, 1962; 1964; Bem, Wallach & Kogan, 1965).

This notion that groups were more risky than individuals made a certain amount of sense. On the one hand, there is the popular notion that there is a diffusion of responsibility in groups.—“it’s not me but the group”. However, the phenomenon proved not to be so simple. There appeared evidence that groups are not always more risky than the individuals; sometimes there was evidence of a shift towards caution.

#### B. The cautious shift:

Some of the choice dilemmas of Wallach, Kogan and Bem (1962) were found to reliably elicit a cautious shift. Consider a young married man with 2 school age children who has a secure but low paying job but no savings. He hears of a stock of a relatively unknown company which may soon triple in value or decline considerably. To invest, he must sell his life insurance policy. Now, what probability of success would you require before investing in the stock? Frasier, Gouge and Billig (1971) found that some choice dilemmas, such as this one, reliably led to a cautious shift. After discussion, the group decision became more cautious and this cautious attitude remained after discussion.

Other evidence came from studies such as that of Knox and Safford (1976) on horse race betting.

One set of subjects bet as isolated individuals in the second and fifth race, and as a member of a group on the third and sixth race. The other set bet as a group on the second and fifth race and as isolated individuals on the third and sixth race. All bets involved a purchase of a two dollar ticket. Defining risk in terms of closing odds, the results showed that bets made as a group were more cautious than bets made as individuals. The odds of winning were higher.

### C. The general phenomenon: Polarization

As evidence accumulated that there were reliable “cautious shifts” as well as “risky shifts”, there appeared to be a “dilemma” in the literature. Sometimes, groups made more risky decisions than individuals; sometimes they made more cautious decisions. Which is correct? Actually both. In analyzing the research literature, Moscovici and Zavalloni (1969) argued that both were an example of the same process. The broader phenomenon is that groups produced more extreme judgments in the direction that was initially preferred. If a group consists of individuals who favor risk, one will find a risky shift; if they prefer caution, one will find a cautious shift. More importantly, the phenomenon was found to be much broader than simple risk taking. Moscovici and Zavalloni (1969) argued that this extremization of the initial preference occurred for many attitudes as well.

To illustrate, they conducted an experiment on attitudes towards Charles de Gaulle and towards Americans, opinions that were positive and negative respectively for French students in the late 1960s. As with the choice dilemmas, individuals made judgments alone, then discussed the issue in a group and then gave individual judgments again. Results showed that the positive perceptions of de Gaulle become more positive; negative perceptions of Americans become more negative. Both became more extreme in the direction of the initial orientation. Furthermore, they maintained these extreme views after the discussion had ended.

These results hold up over numerous studies and different kinds of issues. Polarization may be one of the most reliable findings in Social Psychology. Prejudiced people discussing racial issues become more prejudiced; those less prejudiced become less prejudiced (Myers and Bishop, 1971). People who believe “guilty” and then discuss the case come to believe the person is even more “guilty” after discussion; those believing “not guilty” also become more extreme and confident of their position after discussion with like minded people (Myers and Kaplan, 1976)

Attempts to understand “why” were numerous but have been reduced to two classes of theories by the 1980s (Isenberg, 1986; see Pruitt, 1971). One is social comparison theory. According to this theory, people compare themselves with others in order to present themselves in a socially desirable light. An early version of this, aimed at understanding the “risky shift” was the “risk as value” hypothesis Brown (1965) reasoned that a moderate willingness to take a risk is a strong cultural value. People believe that they are at least as willing to take risks as most people. In interaction, they may find that they are more cautious than many of their group members and they thus shift towards risk to maintain a positive self image.

Most versions of social comparison theory argue that people desire to be perceived as more favorable than average. However, they usually start with a judgment that is a compromise between their ideal and what they believe to be “average” lest they appear deviant. However, when they interact in the group, they find that “on average they are average”. Desiring to place themselves in a more favorable light, they extremize their judgments in the desired direction.

(see generally Pruitt, 1971; Levinger and Schneider, 1969). Variations on this theory have argued that people want to be distinct but in the right direction (Brown, 1974; Myers, 1978; Fromkin, 1970). Thus there is a bandwagon effect –again, people move in the direction of the valued pole.

A very different explanation, termed “persuasive arguments” theory (Burnstein and Vinokur, 1975; Vinokur and Burnstein, 1974), focuses on the exact nature of the discussion. According to this theory, a person’s initial judgment is based on her memory of arguments, pro and con, on the issue. When she enters into a group discussion, she is exposed to other arguments, some of which she had not previously considered—and these arguments may be persuasive. Given that people in these groups share an orientation –for example, they may all favor risk but differ in the exact number—the arguments that are expressed will tend to favor that direction. To the extent that some of these arguments are persuasive and not previously considered, people will shift in that direction. In sum, the persuasive argument theory relies on the information pool present in the group; the greater the number of novel arguments in the group, the more impact those arguments will have. However, for this prediction to hold it would have to be assumed that unique or novel information is actually shared which is not always the case, as we shall see later.

Numerous studies have attempted to see which theory is more accurate. There are studies which are poor in arguments but permit social comparisons (Baron and Roper, 1976; Myers, 1982); there are also studies which are poor in terms of comparisons but substantial in argumentation; Burnstein, Vinokur and Trope, 1973; Ebbeson and Bowers, 1974). In a meta analysis of the 21 studies conducted on these issues over a 10 year period, Isenberg (1986) concludes that there is support for both theories though the magnitude of the effects appear to be somewhat larger for the persuasive arguments theory.

It is interesting to see that, often, researchers want to find the “right” theory when in fact the phenomenon may be multiply determined. We found this also with reference to groupthink when there was an attempt to see which variable accounted for which consequences of “concurrence seeking”. What we do see in the polarization literature is a very robust phenomenon, one which is highly replicable across many different issues and judgments. Three conditions appear to be necessary: (1) a certain normative value to the issue 2) a certain divergence of views and 3) discussion. When people basically agree on the valued direction and they have some difference of opinion –after discussion, they become more extreme in that valued direction both as a group and as individuals. It is one more example of influence processes that lead to agreement; in this case, the agreement is around a position that is more extreme in the desired direction than the pre-discussion average of the individuals would have predicted.

### III. Shared information

In the discussions of groupthink and polarization, there is a concern that not all viewpoints are expressed or considered in groups. Arguments favoring the desired alternative or pole are expressed; alternatives tend not to be aired. This is problematic since one reason why groups are utilized is because they are assumed to possess more information than individuals. Another presumed advantage of groups is that individual members can use a diversity of information to make sound arguments and therefore group consensus is likely to emerge from an “objective” discussion of the evidence.

According to Stasser and his colleagues, the information that is likely to be shared is information that people have in common. “Unique” information, held by one or a few group members is less likely to be shared, this being one reason for poor decisions (Stasser & Titus,

1985). They tested this proposition using a “hidden profile” . Here, information shared by all the members favors a given decision, while “unique” information held by one or a few favors a different decision. Subjects were asked to read descriptions of three hypothetical candidates for student body president. The information taken as a whole favored Candidate A. In one condition (the shared condition), everyone read all of the information about each candidate. In the other conditions, information was unshared. Only some members received negative information about Candidate B or positive information about A. However, the entire pool of information in all conditions favored A. Stasser and Titus found that there was a tendency for group members to focus only on shared information during the discussion and were thus suboptimal in their decision making. They suggest one reason for why this occurs: when no-one else mentions a potentially important piece of information, one might assume that it is incorrect or irrelevant.

There are several ways to break this sampling bias and get people to express information that they uniquely hold. One is to make them aware of the fact that they hold a unique piece of information. They then are more likely to share it (Henry, 1995). Another way is to assign expert roles to individuals based on the fact that they have unique information,(Stewart & Stasser, 1995). The latter is consistent with research on transactive memory which suggests that, as groups interact over time, they develop roles that dictate which people keep track of, and are responsible for, certain types of information (Wegner, 1986). Still another way to induce the sharing of unique information is to extend the amount of time discussing the issue. Research shows that the more time a group spends discussing an issue, the more likely they will eventually share unique information (Larsen, Christensen, Franz & Abbott, 1998)..

## QUALITY OF DECISION MAKING

In the preceding sections, we have found that influence processes in groups are considerable and, in general, tend toward agreement. People are uncomfortable with differing viewpoints and this provides the impetus both for persuasive attempts and attitude change. In general, we find that numbers, status and shared values have advantages when it comes to influence. Even when they are wrong, majorities can exert influence to their position. As we saw in the groupthink literature, leaders can exert influence over the discussion and decisions. However, we have also seen that minorities can exert influence as well. They sometimes persuade others to their position. Shared values can influence people to agree on a more extreme position than that held by individual members. In all of these cases, we are discussing adoption of a given position. This is the “persuasion aspect”.

Influence, however, can be more broadly construed. Rather than “winning” or gaining adoption of a given position, members can influence one another to think differently, to consider different information and alternatives. As we saw in the conformity literature, majorities not only “win” but shape our thinking to coincide with their perspective. In the minority influence literature, we saw that dissent liberates people to voice their own authentic views; further, it stimulates individuals to consider more information and more options. Thus even when they do not win, they exert considerable influence on the thoughts and decisions of others.

For many decisions, the issue may not be one of “winning” but rather of finding the best or most creative solution, of making a “good” decision. Repeatedly, we found that groups underperform. Given that people prefer those who are “similar” in values and attitudes (Berscheid and Walster, 1978), such groups not only have majorities but shared values and it is unlikely that individuals will express unique information or “deviant” opinions that they hold. They fear rejection; they

assume (often erroneously) that the group is in agreement. As a result, groups can rush to judgment without considering information or judgments that each individual holds. More importantly, they may not profit from the stimulation that comes from debate which often leads to more divergent thinking and the detection of novel and useful solutions. This is not easily “cloned” by techniques that try to preserve harmony. It comes from authentic differences. From this perspective, a “culture” of not only tolerance but a welcoming of differing views becomes important .

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Figure 1

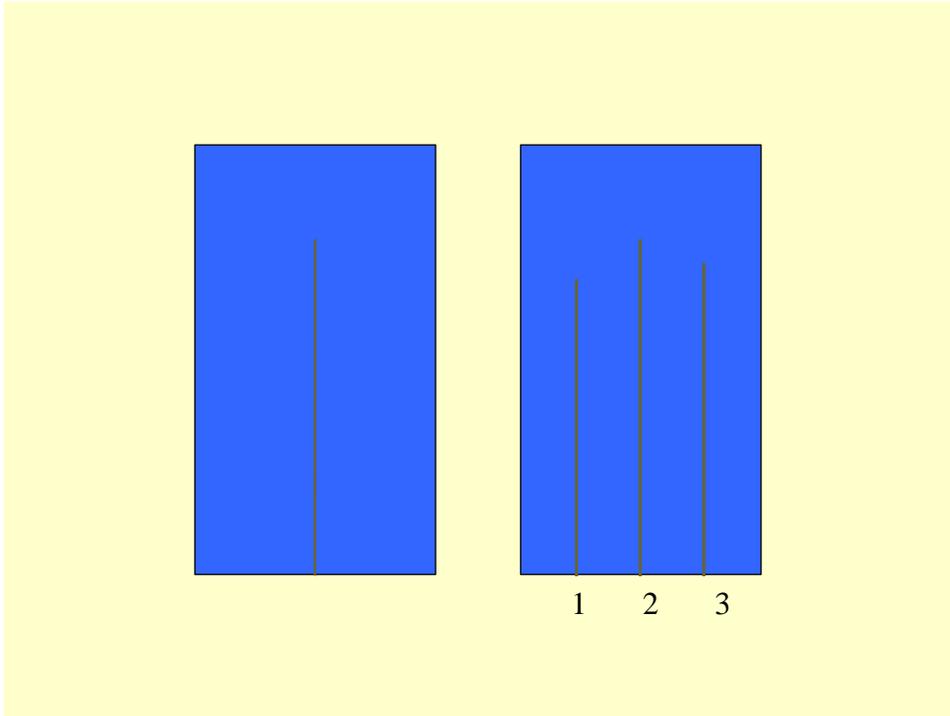


Table 1

Juries: “Guilty” on First ballot  
and final verdict

Final verdict	0	1-5	6	7-11	12
NG	100%	91%	50%	5%	---
Hung	---	7%	---	9%	---
G	---	2%	50%	86%	100%
#cases	26	41	10	105	43

Table 2

## Majorities vs Minorities

(Nemeth,1995;2001;Gruenfeld,1985; West&DeDreu,2001)

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• <b>MINORITIES</b><br/>stimulate:</li><li>• search for more information on all sides</li><li>• utilization of all strategies</li><li>• detection of novel,correct solutions</li><li>• more creativity;better group decision making</li></ul> | <ul style="list-style-type: none"><li>• <b>MAJORITIES</b><br/>stimulate</li><li>• search for information supporting majority</li><li>• utilization of majority strategy</li><li>• following of majority; no novel detection</li><li>• reduced creativity; premature consensus</li></ul> |
|---|---|

Table 3

## “First” vs. “Later” Associations\*

	Majority	Minority	Control
Uniqueness of first association**	9.97 <sub>a</sub>	8.98 <sub>a</sub>	11.66 <sub>a</sub>
Uniqueness of associations 2-7**	6.35 <sub>a</sub>	2.97 <sub>b</sub>	4.26 <sub>c</sub>
Uniqueness of all associations (1-7)	7.15 <sub>a</sub>	3.85 <sub>b</sub>	6.00 <sub>a</sub>

\*Subscripts in common indicate that the means are not different at the .07 level.

\*\*Associations to “blue” and “green” are combined.

C.J. Nemeth & J.L. Kwan. (1985). Originality of word associations as a function of majority vs. minority influence. *Social Psychology Quarterly* Vol. 48(3), 277-282.

**Table 4**

