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THE EFFECT OF EXPECTED MEETING AND KNOWLEDGE ABOUT OTHERS ON ESTIMATES OF ASSUMED BELIEF SIMILARITY AND CONSENSUS

By

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ABSTRACT

THE EFFECT OF EXPECTED MEETING AND KNOWLEDGE ABOUT OTHERS ON ESTIMATES OF ASSUMED BELIEF SIMILARITY AND CONSENSUS

By

Daniel M. Stults

Previous research on assumed similarity and false consensus has generated conflicting explanations of the possible mechanisms which underlie peoples' tendency to overestimate the extent to which others hold the same opinions as themselves. Some researchers, e.g., Ross, Greene, House (1977) have speculated that the phemonemon of opinion projection is strictly due to cognitive factors. In contrast, others, e.g., Miller and Marks (1982), have speculated that a need for social support motivates opinion projection.

The present study set out to test the motivation versus cognition perspectives by manipulating variables that were expected to engage motivational components without significantly activating the cognitive mechanism of availability. Subjects were placed in the position of a review board member and asked to read descriptions of police officers who were under review for either a merit raise or a reprimand and to make a decision regarding the officer under review. Following the supervisory decision, subjects were systematically provided with information regarding the decision of other subjects who were purported to be participating in the same session.

In some cases, subjects were told that they would be meeting with another subject to discuss their decision. It was hypothesized that estimates of consensus and assumed belief similarity would vary as a function of expected meeting and information about others' decisions.

Consistent with previous research, subjects tended to assume more belief similarity between themselves and others when they expected a future meeting than when no meeting was anticipated. Also as hypothesized, significant amounts of false consensus were generated by each of the experimental conditions. However, expected meeting and knowledge about ohters' decisions did not differentially affect estimates of consensus, nor was there a high degree of association between measures of consensus and belief similarity. A number of issues were discussed in light of these results, including the speculation that esteem is a potential moderator of opinion projection. In addition, several potential follow-up studies that would test the relative contribution of motivational and cognitive mechanisms were discussed.

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THE PROBLEM: "PSYCHODYNAMICS VERSUS PSYCHOLOGIC"

The hypothesized contribution of motivational and cognitive influences to all levels of behavior has stirred debates regarding when these factors work conjunctively versus disjunctively, and the relative contribution of each (Miller and Ross, 1975; Ross, 1977; Zuckerman, 1979; Nisbett and Ross, 1980; Tetlock and Levi, 1980). Abelson (1983) called this debate a question of hot (motivational) versus cold (nonmotivational) cognitions, whereas Nisbett and Ross (1980) have provided the fitting, though somewhat whimsical, labels of psychodynamics and psychologic to motivated versus structural information processing respectively.

This cognition versus motivation debate stems, in part, from the work of attribution theorists (e.g., Kelley, 1967) who have suggested that people are information processors who use systematic methods of accessing, processing and retrieving data. Kelley called people "intuitive scientists" because he believed they make systematic assessments of information from the environment. For the last several years researchers have tried to identify the qualities and limitations of the intuitive scientist. These investigations have

attempted to examine both logico-deductive process and mechanistic cognitive process. (cf. Kelley, 1967; Ross, 1977; Taylor and Fiske, 1978; Nisbett and Ross, 1980; Harvey and Weary, 1984).

Researchers have postulated a number of strategies that individuals potentially use in the interpretation of, and interaction with, the environment. Some of these mechanisms seem rational in nature (e.g., the assessment of consensus, consistency and distinctiveness information; the representativeness heuristic). Such processes suggest a view of humans as a deductive, reasoning organisms (even if the reasoning is poor and the information is weak). Other proposed mechanisms (e.g., top of the head phenomenon, and attitude accessibility) suggest a more reflex like, mechanistic processing of information. Both the rational and mechanistic processes, however, have one thing in common -- they basically are non-motivational mechanisms (i.e., information processing strategies that systematically weight information in decision making).

Other researchers have taken a different perspective in their interpretation of human judgment. Without necessarily denying the role of information processing mechanisms, these investigators have postulated the influence of a second kind of component

which affects our interpretation of the environment -- motivational variables. The basic tenet of this motivational perspective is that hedonic relevance affects individuals' judgements, behaviors, and interpretations of the environment.

The motivational perspective, which is usually thought of as need- or drive-based, contends that individuals' behaviors and judgments reflect the biasing influence of concerns with physical or psychological outcomes or personal welfare. A detailed discussion of some motivational variables follows later in this paper. However, it should be noted that these motive based mechanisms include such things as self-justification (Messé & Sivacek, 1979), self-enhancement (Miller & Marks, 1982), social support (Sherman, Pressin, Chassin, Olshavsky, Corty, 1984), and vested interest (Crano, 1983).

At this time, there is not enough empirical evidence to endorse unequivocally one explanation over another (Tetlock & Levi, 1982). Nonetheless, the empirical, and directly verifiable predictions of the two perspectives have allowed scholarly discussion of these competing explanations. In fact, some investigators have already claimed greater support for one perspective or the other (Miller & Ross, 1975; Bradley, 1978; Zuckerman, 1979). The present work attempted to shed further light on the relative contribution of

motivational and nonmotivational influences on behavior by examining phenomenon that has stirred a great deal of debate between cognitive and motivational theorists -- opinion projection.[1] In particular, the present work examined the concepts of assumed similarity and false consensus within a context that attempted to elucidate factors that were expected to moderate opinion projection. The following section reviews false consensus, its origin and definition.

False Consensus - Conceptual Beginnings

False consensus is the term used by Ross, Greene, and House (1977) to identify the tendency in people to view their own beliefs as typical. Such over-generalization from one's own behavior has been widely documented (Kelley & Stahelski, 1970; Ross, Greene, House, 1977; Goethals, Allison, & Frost, 1979; Messé & Sivacek, 1979; Miller & Marks, 1982; Gilovich, Jennings, & Jennings, 1983; Krahé, 1983; Marks, 1983; Sherman, Pressin, Chassin, Olshavansky, & Corty, 1983; Marks, 1984; Sherman, Pressin, & Chassin, 1984). Ross, Greene, and House (1977) for example, had subjects decide between two alternative actions, then predict the number of peers who would choose as they had. Ross et al. hypothesized that subjects would judge their choices

relatively common and appropriate whereas they would view the unchosen alternative as uncommon, and possibly inappropriate.

Ross et al. stress that the term relative is critical in the formulation of the false consensus phenomenon. They suggest that individuals who choose extreme actions (i.e., revolutionaries, tight rope walkers, or clerics who choose a life of celibacy) will recognize that their choices are uncommon. In such special cases, perceived uniqueness may be due to people having direct access to, and a clear knowledge of, the base rate of these activities. But, for the most part, people have little or no knowledge of the base rate of even the most common behaviors. For this majority of behaviors, Ross et al. suggest estimates of others' behaviors will be directly linked to our own behavioral choices.

In their first study, Ross, Greene, and House (1977) asked 320 college students to respond to one of four questionnaires. In each case, subjects were presented with a dichotomous choice for a hypothetical situation (i.e., sign a release/choose not to sign; choose individual paper/choose a group paper, etc.; see pp. 281-282). After making their own decision regarding how they would personally choose, subjects were asked to estimate the number of their peers who would choose as

Table 1

From Ross, Green, House (1977):
Perceived Consensus: Estimated Commonness of Own and Alternative Behavioral Choices (Study 1)

Story	Rater's own choice in hypothetically described situation	n(%)	Estimates of consensus: estimated percetage of raters who would choose Option 1	Option 2	F
Supermarket story	Sign Release	53(66%)	75.6	24.4	17.7
	Not Sign Release	27(44%)	57.3	42.7	
Term Paper Story	Choose individual paper	64(80%)	67.4	32.6	16.5
	Choose group paper	16(20%)	45.9	54.1	
Traffic Ticket story	Pay speeding fine	37(46%)	71.8	28.2	12.8
	Contest charge	43(54%)	51.7	48.3	
Space Program story	Vote for cutback	32(40%)	47.9	52.1	4.9
	Vote against cutback	48(60%)	39.0	61.0	
Summary of Four stories	Choose option 1	186(58%)	65.7	34.3	49.1
	Choose option 2	134(42%)	48.5	51.5	

they had.

The results are presented in Table 1. For each scenario, an analysis of variance was performed to test the difference between subjects' estimates of the number of peers who would select Option 1. The results indicate that subjects who themselves chose Option 1 estimated that many more people would choose that option than did subjects who chose Option 2.

Ross et al.'s third and fourth studies show a similar pattern of results. In Study 3, the researchers again presented subjects with a hypothetical situation: How would they choose, if asked to wear a sandwich board sign around campus (which said, "Eat at Joe's" or "Repent")? In each case, about half of the subjects volunteered to wear the sign. When compared to the estimates of subjects who refused to wear the sign, subjects who volunteered typically estimated that twice as many peers would agree to wear the sign. In Study 4, subjects were actually asked to wear the sandwich board sign. The results of this final study were virtually identical to those of Study 3. The conclusion which Ross et al. draw from these findings is that subjects do, in fact, overestimate the extent to which they see their own choices as common.

Operationalizing False Consensus

There are several different ways false consensus has been operationalized. The most intuitive operational definition (yet, a definition which has not been used in empirical work) suggests that individuals overestimate consensus in the direction of their own choice relative to the actual base rate of peoples' decisions. A second operationalization, the one suggested by Ross and his colleagues, defines false

consensus as the difference between the estimates of decision preference for individuals who made the same choice as the subject versus those who chose differently. Third, some authors (e.g., Sherman, Presson, Chassin, Corty, Olshavsky, 1983) have labeled as false consensus the relative differences in frequency estimates between people who participate in a focal behavior (i.e., the behavior about which subjects are asked to make estimates of others' responses) versus those who do not participate. For instance, Sherman and his colleagues examined the frequency estimates of smokers and non-smokers. More generally, according to Sherman, any difference between estimates of behavior frequency for individuals who are under different situational constraints (either by their own choice or otherwise) can be identified as false consensus. Ross et al. and Sherman's definitions are conceptually identical since both identify false consensus as relative differences in frequency estimates between two groups which differ on a single dimension. The differences between these definitions are detailed below.

According to the first operational definition of false consensus given above, false consensus is the deviation from the actual base rate of decision making. Suppose that a dichotomous decision is split exactly 50/50 among experimental subjects. False consensus could be measured

as the relative deviation from this equality. False consensus bias then, would be the difference between actual (equal) and predicted estimates of consensus. This difference could be measured independently for the two groups - those who chose Option 1 and those who chose Option 2. In this case both, the consensus estimates for those who chose Option 1 and those who chose Option 2 would be tested for deviation from the midpoint. Again, it should be noted that this first definition reflects the intuitive concept of false consensus. That is, the term false consensus implies an inflated frequency estimate in the direction of one's own choice or opinion relative to the actual base rate of that choice. In contrast, the other operational definitions ignore the base rate.

In fact, current data on false consensus do not indicate that subjects' estimates of consensus differ from the actual base rate of decision preference. For instance, in Table 1, the cumulative results across the four scenarios of Ross et al.'s (1977) research, show that for individuals who chose the second option, their estimates of consensus (49/51) are highly similar to the actual 58/42 split. Similarly, those who chose Option 1 also do not overwhelmingly advocate the pervasiveness of their own choice (66/34) relative to the actual split. It is not clear then, that either estimate really differs from the

actual split in the population decision. In fact, when actual decision split is used as a covariate, the false consensus effect (as conceptualized by Ross) was virtually eliminated.

According to the original Ross et al. (1977) (definition 2 page 7) operational definition, false consensus does not depend on the actual base rate of the raters' decisions. For example, examination of Table 1 indicates that for the term paper scenario, the actual split in rater's decisions was 80% - 20%. If false consensus was a deviation from the base rate, the majority of subjects in this condition would have had to estimate consensus in the high 90 percent range to make consensus statements which were "false." In fact, Ross et al.'s subjects who opted to "choose the individual paper," made an estimate of consensus (67.4%) which was substantially below the actual decision split. For this case, as well as several other instances to be found in Ross et al.'s work, subjects actually underestimate consensus. Nonetheless, according to Ross et al.'s operationalization, there was a significant false consensus effect, since individuals who chose Option 1 predicted that a greater number of others would chose Option 1 than did subjects who had picked Option 2.

Given that Ross et al. accept the idea that subjects can underestimate actual consensus and still demonstrate

false consensus, it appears that these researchers are more interested in the phenomenological issue of false consensus, than in the accuracy issue. Their measurement of false consensus capitalizes on the slight bias toward self by comparing groups of individuals whose consensus estimates should differ in opposite directions if there is a bias toward one's own beliefs. For instance, heavy drinkers may be prone to overestimating the number of their peers who also drink, whereas members of a temperance union might underestimate the frequency of drinkers, i.e., overestimate the number of non-drinkers.

What conclusions can, or should be, drawn from this discussion of consensus? First, the term false consensus is, in part, a misnomer, since subjects' estimates of consensus may actually be lower, not higher than the actual rate of consensus. Second, in empirical work false consensus is not measured as a predicted deviation from the base rate of decision preference. In fact, Ross et al. (1977) and Sherman et al.'s (1983) operational definitions ignore the actual decision split. Finally, the false consensus effect, according to Ross et al., is based on the combined effect of the overestimate of one group, and underestimate of a second group.

From a measurement point of view, both Sherman et al. (1983) and Ross et al. (1977) use a single question

to assess estimates of consensus. After choosing one of two alternatives, subjects are asked "What percent of your peers would choose as you have chosen?" According to Ross, a main effect for "choice," that is, differences in estimates of consensus between those who chose Option 1 and those who chose Option 2, indicates a false consensus effect. If one were interested in manipulating factors that affect estimates of consensus, Ross et al.'s definition is somewhat problematic. In order to demonstrate the effect of some variable which is purported to affect estimates of false consensus (i.e., enhance the relative difference in frequency estimates for those who chose Option 1 versus those who chose Option 2) an interaction between "choice" and that variable must be demonstrated.

Suppose, for example, that expected meeting (with 2 levels: meet or do not meet) was hypothesized to affect false consensus. The interaction term, indicating a false consensus effect at one level of meeting, and no (or a different) effect of false consensus at a second level meeting would demonstrate the effect of meeting on false consensus. This example can be expanded to another, higher level of complexity. Given a relatively complex design where one expects consensus to be depressed in some cells and raised in others, the Ross et al. measurement of consensus fails to allow an

assessment of the relative effect of the manipulations between cells, i.e., one can assess the relative effect of manipulations individually (via the interaction between "choice" and manipulation A, and "choice and manipulation B), but it does not allow easy comparisons between the cells of these different conditions.

Sherman and his colleagues have suggested an alternative which does permit such a cross condition comparison of false consensus conditions. Take the case where two conditions are compared to determine whether one generated more consensus. Sherman et al. have suggested that mean differences in the level of consensus between conditions (with the estimates of both those who chose Option 1 and those who chose Option 2 reflecting the percent of others who would make the same choice as they had) serves as an adequate measure of false consensus. Rather than requiring factorial analysis to get at interaction effects, as would be necessary using Ross et al.'s methods, Sherman's method of measuring consensus allows for an examination of manipulations that potentially can affect estimates of consensus through the use of planned comparisons. It is Sherman's definition, that false consensus is the relative degree to which individuals endorse the belief that most others would tend to make the same decisions as themselves, which is used in this dissertation to explore

the differential impact of manipulations on estimates of consensus. In the following sections, several potential explanations of the false consensus phenomenon are explored and relevant supporting and opposing empirical work is discussed.

NONMOTIVATIONAL EXPLANATIONS OF FALSE CONSENSUS

Availability

One mechanism that is purported to affect the way people make estimates of others' beliefs has come to be known as the availability heuristic, a term coined by Tversky and Kahneman (1982). In essence, the availability heuristic refers to a postulated process in which individuals access information that is stored in either short- or long-term memory. Based on the information in memory, estimates of frequency and probability, they suggested, may depend on subjects' assessment of availability to, or associative distance from, information regarding some belief, behavior or event. A primary postulate of this view is that repetition enhances attitude availability. For instance, Tversky and Kahneman noted that people are better at recalling instances from large samples (i.e., multiple observations) than they are at recalling instances from small samples.

Given that repetition enhances attitude availability, common occurrences are more readily imagined than are rare occurrences. For instance, Tversky and Kahneman would suggest something similar to the following example. Take the situation in which a senior faculty person is asked to judge the likelihood of promotion for an assistant faculty member. In thinking about this issue the senior member may recall prior instances of promotion for assistant professors. To evaluate the likelihood of promotion, Tversky and Kahneman suggest that the senior faculty person would access the number of prior instances in which promotion was awarded as well as assess the number of instances in which promotion was not awarded. Tversky and Kahneman suggest that if more promotion instances are recalled (or more tenuously, if it seems easier to recall instances of promotion), the senior faculty member would predict a high probability of promotion for the present candidate.

Three related aspects of this approach are intuitively unsettling: first, it relies on simple frequencies; second, it underutilizes the full content of prior experience; and third, it fails to consider possible effects of higher-order cognitive processes. Thus, Tversky and Kahneman suggest that estimates of promotion will not be based on the senior faculty

member's recollection of the quality of previous junior faculty, nor will they be based on the quality of the faculty member under review. Rather, in their view, such estimates are based entirely on the relative numbers of relevant past experience that favor one outcome over another.

Kahneman and Tversky's view of the human as information processor is based on the assumption that the human mind is limited in its ability to process information, and therefore, it must use efficient methods of "data" reduction to think effectively. They suggest that the use of availability information is one such labor-saving method. Tversky and Kahneman, in fact have provided several demonstrations that support the notion that individuals use the availability heuristic when making a variety of judgements. In a series of ten studies, they examined subjects' ability to estimate frequency and probability in the recall and construction of target items. They hypothesized that the judged frequency of classes is biased by the availability of their instances for both perceived ease of construction and recall.

In their first study, Tversky and Kahneman provided subjects with eight problems in which they were given seven seconds to estimate, from a sequence of nine letters (e.g., XUZONLCJM) how many words they could

produce in a 2 minute period. Subjects estimated the number of words prior to construction on eight problems and they constructed words without prior estimation on eight other problems. The estimation and construction problems were alternated. Tversky and Kahneman found that the correlation between estimation of the number of words which could be produced and actual production was 0.96, indicating a strong relationship between these two very different behaviors. They take this relationship between estimation and construction as an indication that some abbreviated activity - the availability heuristic - must exist to allow accurate prediction even when the short amount of time allowed precluded subjects from actually attempting constructions.

In the second study of this series, subjects were asked to recall, rather than construct, instances from one of two categories (e.g., flowers or Russian novelists). Again, subjects were given seven seconds to estimate the number of instances of a given category they could list in a 2 minute period. The results indicated that there was a very strong relationship between estimation and actual recall, $r = 0.93$. One explanation for these results is that people use the number of instances constructed or recalled in a short period to estimate the number of instances in a longer (construction/recall) period. Or, as Tversky and Kahneman

suggested, subjects may only assess the ease of availability without using retrieval or construction at all.

In an attempt to discuss variables that may underlie the availability heuristic, Tversky and Kahneman have suggested that availability may depend on the strength of associative bonds between cognitions. They assert that associative bonds are strengthened by repetition. In essence, Tversky and Kahneman suggest that the availability heuristic functions as the inverse of the repetition/associative bond relationship, i.e., individuals' assessment of the strength of a bond is taken as an indicant of exposure frequency. Therefore, the easier the availability, the greater perceived strength of an associative bond. But, speed of availability is the operational definition of associative bond strength. So how can we distinguish between the two? The reasoning is tautological, a measure of one is also the measure of the other.

Some recent research has provided mixed support for the notion that availability is enhanced through repetition. Powell & Fazio (1984) asked subjects through a series of redundant items that were embedded within a questionnaire to state their opinion, and repeat their opinion zero, one, three or six times. They predicted that repeated attitudinal expression would decrease

response latency for object-evaluation as measured by reaction time. In fact, their results indicated a linear trend showing decreased latency with increases in attitudinal expression in an initial block of trials. In a second trial block, however, no effect of repeated attitudinal expression was demonstrated. Thus, Powell and Fazio's work provides some support for the availability hypothesis of Tversky and Kahneman (1982). Completely consistent with Tversky and Kahneman's view, repetition was found to enhance availability at least with rather immediate recall. Relevant to false consensus, Powell and Fazio's results also suggest that subjects who have the opportunity to repeat their attitudes should also make higher estimates of consensus than subjects who do not repeat their attitudes.

Vividness

In addition to repetition, what is it that makes some data more accessable than others? Nisbett and Ross (1981) suggested that accessibility may be dependent on the "vividness criterion." Information that is more likely to attract and hold our attention, they noted, depends on the extent to which the data are (a) emotionally interesting, (b) concrete and image provoking, and (c) proximate in a sensory, temporal or spatial way. Nisbett and Ross suggest that vivid

information is more likely to be stored and remembered than pallid information. However, the examples these authors use suggest that "vividness" may be synonymous with an additional stimulus or additional information.

Nisbett and Ross suggest that events that happen to us are more interesting than events that happen to other people. They suggest further that the emotional interest of an event is influenced by the degree to which it affects the participants needs, desires, motives and values. One benefit of this is that it integrates both "motivational" and "cognitive" explanations of availability. To say that availability depends on the "hedonic relevance" (p. 46) of the event clearly calls for an integration of these two potential influences.

One implication of Nisbett and Ross' ideas is that vivid data provide more information than pallid data. For instance, Nisbett and Ross present the example of Jack: "Jack skidded on an icy road and demolished a parked car." The authors suggest that casual observers would think Jack was a bit unlucky. However, Nisbett and Ross suggest that if an observer was told that the car belonged to a close friend or relative of theirs, or that it was their own car that was hit, they would respond differently, e.g., Jack is a menace and should be removed from the road. Moreover, the latter scenario would be much more likely to be

recalled.

What is it that makes this latter scenario more likely to be recalled? Perhaps hedonic relevance serves as an attention-focusing device that triggers a greater number of associations, and, as a consequence ensures a greater likelihood of encoding more information. For instance, a number of researchers (e.g., Hull and Levy, 1979; Markus, 1977) have demonstrated that there are individual differences in the information processing of self-relevant information. Such a view requires postulating some type of information processing step that takes this perspective beyond those that rely entirely on cold cognition for their explanatory power.

Even beyond the problem that vividness implicitly contains a motivational component, there is a further complication in convincingly demonstrating that false consensus is a manifestation of a purely cognitive phenomenon. The most direct test of the attitude accessibility hypothesis is through the use of a reaction time measure. The faster the reaction time, the more available the cognition. In terms of applying the availability heuristic to the false consensus phenomenon, reaction time is not an ideal measure of false consensus. Although one could measure the time it takes to make estimates regarding the number of peers who might make the same decision as oneself, this

procedure would seem to be an imprecise measure. As a consequence, some indirect method must be used to test the postulated effect of availability. Specifically, one must devise situations in which availability would be manipulated without engaging a motivational component.

The use of reaction time as a measure of attitude availability suggests a potential method for discerning the relative influence of motivational and nonmotivational explanations of false consensus. If one were to take to the extreme the logic of the nonmotivational perspective, by definition, those individuals who demonstrated higher attitude availability (have faster reaction times for a number of different measures) would also demonstrate greater amounts of false consensus. That is to say, those individuals who had the most efficient processing apparatus (in terms of hardware), and assuming motivational differences are random, should demonstrate the greatest degree of false consensus. Such a result seems unlikely but would provide support for a cold cognitive explanation.

In sum, speculations regarding the relative effect of vividness information and its purported impact on attitude availability has not directly address the false consensus phenomenon. No research has directly attempted to examine the effect of vividness on attitude

availability, so few conclusions can be drawn. In fact, as in many other studies, vividness and the availability heuristic have been applied to false consensus research only as a post hoc explanation of the results.

Selective Exposure

Ross and Anderson (1982) suggested that another phenomenon related to accessibility could be the cause of the false consensus effect. They reasoned that we know and associate with people who are similar to us - people with the same experiences, backgound, values and so forth. Such people do, they suggested, respond as we would in a number of varied circumstances. This view, in fact, is consistent with work on attraction and liking which suggests that we are attracted to and are friends with those who have similar attitudes as ourselves (Byrne, 1971). This peer group may then serve as a biased sample of people from which we may make erroneous judgements regarding the more general population. In essence, selective exposure to this group of people may affect estimates of consensus. Ross and Anderson suggested that selective exposure itself might affect cognitive components such as the ability to recall or visualize occurrences of certain behaviors. In this way, selective exposure could affect the availability of information. As

a consequence, individuals are likely to be misled by the ease or difficulty they encounter in estimating the likelihood of certain occurrences.

Sherman, Pressin, Chassin, Corty, and Olshavsky (1983) systematically examined the selective exposure hypothesis. In this study, Sherman et al. examined people's estimates of smoking prevalence as a means of testing three predictions relevant to the selective exposure hypothesis. First, they predicted that estimates of smoking prevalence would be related to the number of significant others who smoke (i.e., smokers with whom subjects share their immediate social environment). Second, false consensus would be stronger in populations where friendship patterns are homogenous relative to smoking (i.e., smokers socialize with smokers; nonsmokers socialize with nonsmokers), and conversely, the false consensus effect should be weaker where friendship patterns are heterogenous relative to smoking (i.e., smokers and nonsmokers intermingle). Third, Sherman et al. predicted that if selective exposure underlies the false consensus effect, estimates of smoking would be relatively high for peer groups, but lower for nonreference groups. For example, they suggested that adolescents should show stronger false consensus when estimating the smoking prevalence of teenagers than when estimating the smoking prevalence of adults.

The selective exposure hypothesis received some support in this study. Subjects were asked, out of their 5 closest friends, how many smoked. The number of close friends who smoked was then correlated with smokers and nonsmokers estimates of smoking prevalence. The results indicated a moderate relationship between number of friends who smoke and estimates of smoking prevalence $\underline{r}$'s (.05 to .43). This relationship appeared to be greater among nonsmokers (average $\underline{r}$ = .27) than among smokers (average $\underline{r}$ = .17).

The prediction that subjects would demonstrate larger false consensus effects when estimating the smoking prevalence of their peer group than when estimating for a nonreference group was also supported. Adolescents made greater estimates of consensus for their peers than for adults. Finally, the third prediction was also supported - estimates of consensus appeared to be greater among homogenous groups than among heterogenous groups. Thus, there is some support for the selective exposure hypothesis.

If selective exposure is to stand as a viable "nonmotivational" explanation of the false consensus effect the question must be asked, "How nonmotivational are the phenomena connected to selective exposure -- that is, what causes them?" It is clear from a purely nonmotivational viewpoint that the assessment of

information requires a narrowing of perspective to allow "sense-making" to occur. However, it has been suggested that selective exposure is hedonically based. Abelson, Aronson, McGuire, Newcomb, Rosenberg, & Tannenbaum's (1968) sourcebook on cognitive consistency addressed the issue of selective exposure and suggested that exposure was primarily affected by incentives to acquire personal gains, social approval or anticipated self-approval. Recent work (Frey & Rosch, 1984) has provided strong evidence that selective exposure occurs when a decision is decision is irreversable. Their results are consistant with a dissonance theory explanation, and inconsistent with a cold cognition explanation because selective exposure, assuming it is a cold cognition, should be constant, regardless of decision reversability. In contrast, if selective exposure is motivated, it could potentially prevent dissonance in some instances -- those cases where the decision is irreversable. From a motivational perspective, selective exposure would be unnecessary in cases where the decision was reversable.

Mark Snyder's (1984) "hypothesis confirming" research is suggestive of similar, motivational explanations of selective exposure. In his research, Snyder presented subjects with information from which they tended to generate selective, hypothesis confirming behaviors.

For example, subjects who were told that they would be meeting an extroverted person were much more likely to ask questions like, "Have you been to any good parties lately?" In contrast, subjects who anticipated meeting an introverted person were likely to ask questions like, "Have you read any good books lately?" Such selective, hypothesis based questions led to a confirmation of the subjects' expectations regarding the degree of their partner's extroversion, irrespective of the actual level of his or her extroversion. This confirmatory mode of questioning is consistent with the cognitive consistency model of selective exposure.

The inferences one can draw from this evidence are as follows: Selective exposure can affect false consensus. But, the claim that selective exposure is "nonmotivational" seems erroneous. It could be argued that selective exposure is the result of activating a schema, person prototype, or stereotype. But the question becomes what "triggers" a schema, and is it triggered for a mechanical or motivational reason? The preponderance of evidence suggests that selective exposure is motivationally based, e.g., there is no reason, from an information processing standpoint, why individuals should seek consonant information over information that is inconsistent with existing cognitions. If anything, the opposite strategy might be

more adaptive. However, motivated selection does not preclude the possibility that false consensus arises from a two step process, in which subjects selectively expose themselves to messages and the subsequent availability of that information leads to false consensus. From this perspective, the selective exposure viewpoint fails to elucidate the relative contribution of motivational and nonmotivational explanations of the false consensus effect.

Fundamental Attribution Error

Ross et al. (1977) suggested that false consensus might arise from the divergent perspectives of actors and observers. This hypothesis is drawn directly from the work of Jones and Nisbett (1972), who speculated that observers tended to view the causes and implications of actors' behaviors differently from the way that the actors themselves perceived their behavior. Jones and Nisbett suggested that we tend to see others' behavior in terms of broad, consistent personal dispositions, whereas we tend to attribute our own behavior as actors to situational variables. False consensus, then, may reflect a generalization of one's sense that his or her decision was situationally determined. The logical extension of this argument suggests that manipulating the locus of perceived cause

(situational versus dispositional) should affect estimates of consensus.

Within this framework, Gilovich, Jennings and Jennings (1983) hypothesized that the false consensus effect, and the corresponding tendency to make strong inferences about others who chose differently, would be mitigated when subjects were asked to explain their choices in terms of their own personal characteristics (self-focus condition). Conversely, they also hypothesized that subjects would show a greater false consensus effect when asked to explain their choices in terms of situational factors (situational-focus condition). A third condition was formed in which no focus of attention was stimulated (control condition). Subjects were presented with questionnaires containing descriptions of four hypothetical situations for which there were two behavioral alternatives. Subjects were asked to make their choice, explain why they made their choice, and then estimate the number of students who would choose each of the two alternatives. As expected, subjects under the situational-focus condition exhibited the greatest amount of false consensus, subjects in the self-focus condition exhibited the least false consensus, and subjects in a control condition demonstrated a moderate amount of consensus.

In a second study Gilovich, Jennings and Jennings

(1983) had subjects rate the extent to which their choices on a series of dilemmas would be determined by situational or dispositional factors. From a group of 42 such dilemmas, 10 were selected which represented a broad specturm, from a dilemma which produced choices that were perceived as completely situationally determined to a dilemma in which choices were seen as completely dispositionally determined. This set was then given to a second group who were also asked to make consensus estimates regarding their decision on each dilemma. The results indicated that subjects showed greater false consensus for dilemmas which previously had been rated as highly likely to generate situational responses.

Gilovich et al.'s results provide striking confirmation of their hypotheses, and tend to suggest that a cold cognitive reasoning process may affect estimates of consensus. What is unclear, however, is the link between the perception of situational pressures and the generation of false consensus. Implicit to Gilovitch et al.'s model is a rational-deductive process in which a person reasons "I acted because of situational pressures, so others would probably act the same way." Or, if this is not the process that links attributions with inflation of consensus estimates, researchers need to explicate that link between

the two. In either case, a thorough model of how attribution can inflate consensus estimates has not yet been put foward.

In addition, it can be argued that the fundamental attribution error could have a motivational basis. For instance, Greenwald (1980) found that individuals are more likely to take responsibility for their positive than for their negative outcomes. Others, such as Berscheid, Graziano, and Monson, and Dermer (1976) and Pittman and Pittman (1980) have shown some support for the notion that people strive to control their environment, and that in essence, it is need for control that motivates some attributional process.

Taken as a whole, the research investigating nonmotivational variables which may affect estimates of opinion projection (Availability, Vividness, Selective Exposure, and Fundamental Attribution Error) provide some interesting and plausible explanations for the phemonenon. However, a number of considerations serve to temper one's confidence in the efficacy of strictly cognitive-based explanations of false consensus. First, the availability hypothesis has not been directly examined. It has only been offered as a post hoc explanation of consensus inflation. Second, the vividness criterion, outlined by Nisbett and Ross, has received no attention in empirical work.

Third, the selective exposure hypothesis, although providing some support for the notion that false consensus is the result of a cold cognitive process, has been linked to cognitive consistency and motivational factors. And finally, the attribution process also seems intimately tied to the motivation for control and esteem. Thus far, then, research suggests that a combination of motivational and nonmotivational components affect estimates of opinion projection. The next section reviews evidence which tends to support a motivational perspective of false consensus.

MOTIVATIONAL EXPLANATIONS FOR FALSE CONSENSUS

Motivational mechanisms, which long have been a major focus of inquiry in psychology have been hypothesized to be involved in the false consensus effect. Typically, the motivational perspective has proposed that false consensus is related to defensive projection, or self-serving biases. Such a position suggests that people hold opinions that enhance, justify or validate their own behavioral choices. This motivational perspective is closely allied with the social comparison literature (Festinger, 1954), which asserts that individuals desire to hold socially validated opinions. Such a view suggests that individuals use cognitive bolstering (Janis & Mann, 1971) or cognitive truth bending, to

enhance the perception of self/other consistency. Other researchers who advocate the motivational perspective make psychodynamic interpretations of projection which have been applied to false consensus (cf. Holmes, 1968, 1978). Thus false consensus has been thought of as a function of personal anxiety. In the same frame, Bramel (1962, 1963) has suggested that opinion projection may serve a dissonance reducing function.

Overall, the motivational perspective suggests that the hedonic relevance of opinion projection has its functional value in the reduction of stress and anxiety (Sherwood, 1981; Bennett & Holmes, 1975). The following section outlines empirical work which tends to support the motivational explanation of false consensus. Although each study appears to support different aspects of the motivational interpretation (i.e., self-justification, self-enhancement, bolstering social support, etc.), most interpretations indicate that false consensus is generated under conditions of personal or social anxiety. However, some research examining the effect of hedonically-relevant stimuli suggests that a more general interpretation might be valid. In this more general motivation based view, false consensus is seen as being generated by stimuli that threaten rewards or potential outcomes.

Vested Interest

Vested interest is the term used by Sivacek and Crano (1982) to describe the motivational state of an individual. If the situation is hedonically relevant, they suggested, the person has a vested interest in the outcome of the situation. If a situation has little or no hedonic relevance, the person is said to have little vested interest in it. According to the logic of vested interest, Crano speculated that if vested interest were high, subjects would be likely to assume consensus. If vested interest were low, there would be little motivation to assume consensus.

In a study to examine the relative effect of hedonic relevance on estimates of consensus, Crano (1983) presented freshman, sophmore, and senior college students with information which indicated that the administration was planning to add a tuition surcharge that would affect underclassmen, upperclassmen or all students. In each condition, subjects made estimates (on a scale of 1 to 10) about how the plan would affect them. He then asked subjects to indicate on five bipolar adjective scales their own attitude toward the proposed tuition change. Finally, he asked subjects to predict the percent of peers who would feel the same about the plan as they did. The results showed that

subjects who believed the plan would affect them reported more negative attitudes regarding the plan, and clearly assumed more consensus, than did subjects who had less vested interest in the issue.

The demonstrated link between vested interest and false consensus appears to reflect a general wishful thinking phenomenon -- subjects want a desired outcome, and they hope others would choose as they had. However, a contrasting, yet plausible explanation of Crano's results is that subjects who knew that the plan would affect them were more vigilant, and attended more to their own decision than did subjects in the non-vested condition. The heightened attention of vested interest subjects to their own decision made this cognition highly available, and as a consequence, the subjects own decision was used as a heuristic for predicting the decisions of others. There is, however, no research that examines whether subjects would have greater self-focused attention under conditions of vested interest than under conditions where they were not invested.

If vested interest does not activate attention to oneself, then the next important question regarding false consensus is how general is the phenomenon? Will any hedonically relevant stimuli facilitate false consensus? Crano (1983) suggested that when an outcome

may be costly, individuals will, according to social comparison theory (Festinger, 1954), want to validate the opinions by seeking social support. From this perspective, false consensus would be a natural consequence of any decision or action which could be potentially costly. Accordingly, Crano suggested that vested interest is very general in its activation of false consensus, and in fact, a number of different stimuli have demonstrated a facilitation of consensus estimates, including self-enhancement, self-justification, need for social support, and threats to self-esteem.

Self-Enhancement

Results which tend to support a motivational explanation of opinion projection have been generated in research that has examined the effect of target's physical attractiveness on estimates of similarity. Rating the similarity of specific others, and the relative degree to which a person projects their attitudes onto an other has come to be known as "assumed similarity." Assumed similarity is like false consensus, but rather than focusing on individual estimates of the beliefs of peers in general, assumed similarity concentrates on whether a person projects their opinions onto a specific other.

In a study of assumed similarity, Marks, Miller and

Maruyama (1972) reasoned that individuals are often judged by the company they keep. As a consequence, they suggested, persons expressing a liking for, and a desire to affiliate with physically attractive persons may represent an indirect attempt to present oneself as being similar to socially valued others. In order to test this hypothesis, subjects were first asked to rate themselves on five positive, five neutral and five negative traits. Following self rating, each subject viewed 12 facial photographs of college-aged females who varied in physical attractiveness. Then, subjects were asked to rate each photograph on the same series of traits on which they had previously rated themselves.

As anticipated, the results indicated that subjects assumed greater similarity between themselves and attractive others than between themselves and unattractive others. In addition, attractive targets were desired more as friends than were less attractive targets. The authors suggested two possible explanations for the results. First, they suggested that there may be a spurious relationship between ratings of self and attractive others. Subjects may rate themselves as good and independently rate "what is beautiful is good." A second, motivational explanation suggests that individuals assume similarity between themselves and attractive others as a means of enhancing their own

image. Such a speculation could be examined empirically by using self-esteem as a moderator variable, since low esteem subjects should rate themselves more similar to neutral or unattractive others while still rating attractive others high on socially desirable traits.

In a second study (Marks & Miller, 1982), undergraduates were asked their opinions on eight issues (which varied in the degree to which they were involving) and were subsequently asked to estimate the opinions of 12 targets who varied in physical attractiveness. Consistent with the self-enhancement hypothesis, subjects projected their own responses onto attractive targets to a greater extent than they projected onto unattractive targets. There was no main effect for involving and uninvolving issues. But, issue involvement did interact with attractiveness such that it appeared that subjects distanced themselves from unattractive others on involving issues.

Marks and Miller's (1982) results are inconsistent with the views of nonmotivational theorists in two respects. First, if attitude accessibility influences judgment and prediction, the amount of assumed similarity should not differ between attractive and unattractive targets. Most importantly, they suggest that their data minimize the possibility of a spurious relationship between ratings of self and

attractive others (see their discussion for a detailed account). Second, according to Nisbett and Ross (1980) vividness of an opinion or an attitude enhances accessibility. In the present case, one would predict a main effect for issue involvement. Assumed similarity should have been greater for involving (i.e., more vivid) issues than for uninvolving issues, but this pattern was not found.

In a quite different study (Krahé, 1983), subjects were presented with 26 different scenarios describing a target person in an interpersonal situation. The scenarios systematically manipulated demographic similarity between the subject and the target. After reading each scenario, subjects were asked to rate the degree of similarity between themselves and the target. The manipulation of demographic information had little effect. But, the results indicated that subjects ratings of assumed similarity was strongly affected by the purported success or failure of the target. Subjects saw themselves as very similar to targets who were successful, but dissimilar to targets who were unsuccessful. Her results do not necessarily provide strong support for a false consensus explanation, since subjects attempts to associate themselves with the successful may indicate a "I am like him" self-serving response, which is different from "He is

like me" which is more typical of false consensus. Nonetheless, Krahe's findings seem to indicate more support for a motivational explanation of assumed similarity. Furthermore, it is unclear how differences in information processing could create such an effect.

Taken together, these studies give some support to the notion that individuals assume similarity between themselves and a target when the target person has what might be considered to be "good" qualities. Yet, the potential problem of a spurious relationship between ratings of self and attractive others has not been adequately addressed. Thus, it can only be speculated that the process of assuming similarity between self and valued others may be motivated by a need for self-enhancement, but further research is needed.

Self-Justification

Several studies indicate that false consensus may occur in situations in which subjects feel a need for self-justification. Dawes, McTavish, and Shaklee (1977) speculated that attribution about others' behavior in a mixed-motive game might be a consequence of one's own behavior. They compared the attributions of actors who participated in a commons dilemma to the attributions of observers who did not participate in the dilemma. They predicted that actors' attributions would

be more variable than those of observers, since actors' attributions would be based on their own behavior. Dawes et al. speculated that one of two mechanisms might account for the egocentric inferences made by actors. First, they suggested that actors may feel a need to justify their cooperative or competitive choices (competitors might want to reduce the self-perception of being exploitive, whereas cooperators might need to reassure themselves that they were not being naive). Second, the use of one's own behavior might simply be used as an inferential guide for predicting the behavior of others. In essence, they suggested that the availability of one's own choice might affect estimates of consensus.

Building on the work of Dawes et al. (1977) Messé and Sivacek (1979) used a one trial prisoner's dilemma game to examine subjects' use of own choice in the estimation of other players' behavior. Female college students were asked to play one trial of a prisoner's dilemma game and were subsequently asked to predict the choices of both their partner and a nonpartner. Their results indicated that (regardless of cooperative or competitive choice) subjects assumed greater similarity between themselves and their partner than between themselves and a nonpartner. In addition, Messé and Sivacek found that subjects were more confident when

making judgments about a partner than when making judgments about a nonpartner. Across conditions, subjects tended to overestimate the extent to which others would hold the same opinions they held (grand mean approximately = 65%).

Overall, the results indicated a general false consensus effect which was moderated by outcome interdependence. Since subjects were not presented with any other information which was likely to distinguish between partners and nonpartners, it is difficult to find a compelling explanation other than self-justification for the subjects' consensus estimates. However, it could be argued that the act of pairing individuals produces an ingroup, outgroup bias which encouraged subjects to make "like-me" estimates for partners, and "unlike-me" estimates for nonpartners.

Both the ingroup bias and the self-justification interpretations may be more clearly viewed as parts of a more general social support explanation. Some investigations of false consensus have contended that overestimation of consensus may result from a need to affiliate oneself with a support group. Whether this is a need for affiliation, or related to a bolstering of self-esteem is not clear. The following discussion addresses the social support issue.

Social Support

Closely allied with research on self-justification, the work of Sherman and his colleagues have found results that are consistent with the notion that false consensus is linked to a need for social support. Sherman, Presson, Chassin, Corty, Olshavsky (1983) asked Middle school students, High school students and adults to estimate the number of boys, girls, men and women who smoke cigarets. They hypothesized that false consensus might be used to validate "deviant" behavior. They suggested that the effect would be greater for young adolescents, who would need to justify their deviant behavior, than for members of older groups. In fact, in a comparison of consensus estimates between smokers and nonsmokers the results indicated no false consensus effect for adults, a more apparent effect among high school students, and a pronounced false consensus effect among middle school students. In agreement with these findings, in a comparison of a sample from the midwest to one in the south, Sherman et al.'s results indicated a stronger smoking-false consensus link in the midwest, where smoking was perceived as more deviant.

One note of caution is necessary before inferences are drawn from Sherman et al.'s work. They did not provide measures of effect size, nor do their tables indicate the relative cell size of middle versus high

school students. Their sample included some 5351 students and 122 adults. Of the total number of students, 4343 were from a midwestern community. It is possible that the null findings for adults could be attributed to sampling error alone. Moreover, the relative difference in the number of significant false consensus findings for middle school versus high school students and midwest sample versus southern sample may also reflect differences in sampling error.

If, however, their interpretations are correct, Sherman et al.'s (1983) results can be viewed as supporting a social support explanation of false consensus, e.g., subjects may have perceived a false consensus of their smoking behavior as a means of bolstering support and providing validation for their prohibited activity. Similar results have been demonstrated by Dan Eitzman (unpublished manuscript, 1984) who asked undergraduates to estimate the extent to which their peers participated in several activities. Students who were below the drinking age (but drank regularly) tended to overestimate the number of their peers who also drank. However, when asked to estimate the number of peers who did or did not wear socks with their shoes in the summer time (an activity which is not deviant), no false consensus effect was found for sock versus non-sock wearers.

A third study generated less equivocal support to a social support/self-justification explanation of the false consensus effect. Sherman, Presson, and Chassin (1984) asked subjects to correctly identify a "real" suicide note from a set of two or three possible notes. After subjects picked a note they thought was correct, they were told (through random assignment) that they had chosen correctly (success condition), they had chosen incorrectly (failure condition), or they were not told about the correctness of their decision (No feedback condition). Subjects were then asked to estimate the number of others who would have chosen as they had.

In order to assess the effect of own choice and case information on estimates of consensus, subjects were asked to make estimates of consensus after learning information about how another person picked and the success or failure of that individual in identifying the correct suicide note. The consensus estimates of these two groups (subjects estimated consensus for subjects who either learned of another person's success or who learned of another person's failure) was then compared to subjects estimates for self-pick under conditions of success or failure.

Sherman et al. (1984) examined subjects consensus estimates within the context of a 2 (success/failure) x 2 (self-pick/other-pick) analysis of variance. The

results indicated no difference in consensus estimates between self-and other-pick for subjects in the success condition. However, there was a significant effect for self-pick in the failure condition. As predicted, subjects in the failure condition who had picked the note themselves tended to estimate that more people would choose as they had ($\underline{M}$ = 57.4%) than subjects who were told that another subject had chosen incorrectly ($\underline{M}$ = 42.2%). Sherman et al. in a second, similar study replicated these results.

The results of the Sherman et al. (1984) studies suggest a distinctly motivational interpretation. Consistent with an attributive projection perspective, subjects who had performed negatively overestimated the extent to which others would perform as they had. The failure of subjects in the self-pick/success condition to demonstrate a higher degree of consensus than subjects in the other-pick/success condition suggests that when subjects are secure in their decision, no bolstering of opinion needs to occur. Sherman et al.'s results are also consistent with the vested interest explanation of Crano -- significantly higher estimates of consensus occur in conditions where one's outcomes are potentially negative.

This latter series of studies, which addressed

motivational components that potentially fascilitate the opinion projection, provide evidence that at least in some situations, opinion projection is in part an affect laden, "hot" cognitive phenomenon, one that is not readily explained by simple attitude availability or another "cold" cognitive process. One further piece of support for a motivational interpretation of opinion projection is drawn from the literature on assumed similarity. Research in this area has shown that expected meeting leads to heightened levels of assumed similarity -- as is discussed in the next section.

Expected Meeting

Miller and Marks (1982) set out to demonstrate support for a motivational explanation of assumed similarity. They noted that previous research has shown that social interaction facilitates reciprocal liking (e.g., Arkin & Burger, 1980) among participants, and that others (e.g., Freedman, Carlsmith, Sears, 1974) have noted that people who expect to meet and interact with someone tend to exaggerate the other person's positive traits and ignore or down play the target's negative traits. People do this, Freedman et al. speculated, to convince themselves that their interaction will be pleasant and harmonious. Based on this view, Miller and Marks (1982) hypothesized that

persons tend to project their opinion onto another person when they expect to interact with him or her.

The purpose of Miller and Marks' study was to examine the effect of a specific type of social interaction with an other upon the degree of similarity assumed to exist between self and that other. College undergraduates were examined in dyads in which the other person was a confederate who posed as a naive subject. Potential subjects were approached in a lounge area in a university building and asked if they would be willing to devote a few minutes to answer some questions. Each volunteer first answered a few questions regarding campus issues, and was then provided with a compelling description of a criminal trial which dealt with a robbery and murder. The subject was asked to place him/herself in the position of an actual juror and render a verdict of either guilty or not guilty.

Half of the subjects were led to believe that they would be meeting another subject (the confederate), who was seated a few feet away from them, to discuss the court case and come to a single decision regarding the guilt of innocence of the defendant. The other subjects did not expect to interact with the other subject. In each case, subjects were asked to guess the opinion of the other subject and how likely he or she was to vote guilty.

The results indicated that subjects assumed a significantly greater amount of belief similarity between themselves and an other when a meeting was expected than when no meeting was expected. Miller and Marks (1982) conclude that there is a functional value to projection of one's attitudes. They assert that exaggerating the similarity between one's own view and that of an other helps to reassure oneself that an impending interaction will be harmonious. Miller and Marks (1982) also suggest that the greater the assumed similarity between self and other may increase one's perception of social support for one's position and serve to bolster one's certainty of opinion correctness.

OVERVIEW OF THE PRESENT STUDY

Miller and Marks' (1982) paper provides relatively strong evidence that assumed similarity is driven by a motivational component. One question of interest is whether estimates of consensus would also be heightened by expected meeting. Thus, the present paper takes another look at the issues of expected meeting and perceived social support in an attempt to identify more conclusively circumstances which enhance or depress false consensus and assumed similarity.

There appear to be a number of similarities between

assumed similarity and false consensus. For example, Marks (1983) has shown that there is a relatively high degree of relationship between false consensus and assumed similarity, r = .45. Of primary interest in the present work both assumed similarity and false consensus appear to be affected by motivational factors. It is hypothesized that false consensus, like assumed similarity, at least in part, is driven by anxiety about self/other consistency needs and the need for social support, both of which are hedonically relevant concerns. For example, it is reasonable to expect that persons who feel uncertain about what others believe -- e.g., when they expect to encounter an other whose relevant beliefs are unknown-- will experience anxiety, and as a consequence will use false consensus as a means of reducing this aversive state.

The present study attempted to replicate and extend the work of Miller and Marks (1982) and Sherman et al. (1984) by manipulating (1) expected meeting, (2) information about other subjects' decisions, and (3) knowledge about which kind of partner (agreeing or disagreeing) the subject expects to meet. Table 2 presents a summary of the design and should be referred to for clarification of the hypotheses and planned comparisons. In the following discussion, the letters A through F represent the particular conditions as they

Table 2

Basic Experimental Design for the Present Study

	No Knowledge about others	Knowledge that one person agrees and one person disagrees	
		Meet Either Person	Meet Agreeing Other	Meet Disagreeing Other
Expected Meeting	A	C	D	E
No Meeting Expected		B	F	

are labeled in Table 2. They are included to facilitate the discussion of the hypotheses.

A number of hypotheses can be derived regarding the the role of expected meeting and knowledge about others. Hypothesis I: It was hypothesized that the present study would replicate the work of Miller and Marks (1982) - when subjects have no knowledge of others' decisions, expected meeting will enhance assumed similarity. Moreover, it was hypothesized that the same pattern of results would be found for the false consensus measure, in which subjects would be asked what percent of their peers would choose as they had.

Since subjects do not have the opportunity to selectively expose themselves to information, nor have information which would stimulate different attributional processes between conditions (A, B), nonmotivational theorists would predict no differences between the two groups. In contrast, motivational theorists would predict greater consensus in the expected meeting group. In addition, it was predicted that under the knowledge conditions (C, F) a similar pattern of results would appear (predicted comparisons A > B, C > F for both assumed similarity and false consensus).

Hypothesis II: The critical planned comparisons involve conditions in which there is an expected meeting and subjects have knowledge about the other subjects' decisions (Cells: C, D, E). If false consensus is facilitated by anxiety concerning self-other consistency needs, it is hypothesized that subjects who know that they will meet with an agreeing other will feel less anxiety about their expected meeting, since they anticipate consensus, and their need to assume consensus will be considerably attenuated. Conversely, subjects who anticipate an interaction with a disagreeing other would be expected to have increased anxiety, and thus their need to assume consensus as a means of reducing that anxiety would be heightened. This hypothesis is completely consistent with the work of

Sherman et al. (1984), who demonstrated that under conditions of self-failure, subjects overestimated consensus relative to subjects' estimates of consensus for others who experienced similar failure. In summary then, it is hypothesized that subjects who expect to meet with an agreeing other will exhibit less false consensus than subjects who expect to meet a disagreeing other or subjects who do not know which other (agreeing or disagreeing) they will meet (planned comparisons, C > D, E > D).

Hypothesis III: Expected meeting with a disagreeing other will promote false consensus relative to subjects who have knowledge about others' decisions but do not expect to meet someone (planned comparison, C > F). This prediction is relatively straightfoward. In contrast, there can be less confidence about the extent to which expected interaction with an antagonistic other will affect ratings of false consensus over and above the expected meeting condition in which subjects have knowledge about others' decisions but are ignorant about whom they shall actually meet. There is some uncertainty as to the amount of anxiety the two conditions will generate. However, a reasonable assumption is that meeting with a disagreeing other will generate more anxiety and, thus, generate more false

consensus than will the conditions in which subjects have knowledge about others' decisions, but have no information regarding which subject they are expected to meet (planned comparison, E > C).

Comparisons between the "no knowledge" (A, B) and the "knowledge about others" (C, D, E, F) groups is more problematic since the latter group receives information about others. A comparison between cells A-C and B-F can give an indication of the effect of knowledge on estimates of consensus and assumed similarity. In contrast to previous studies that gave subjects information about the distribution of opinions or actions for the population and subsequently asked them to make predictions about individuals (see Tversky and Kahneman, 1982), the present study gives subjects specific information about individuals and asks them to make predictions about the population.

METHOD

Subjects

Sixty-five male and seventy-two female undergraduate students at Michigan State University participated in the study for extra credit in an introductory psychology course.

Design

The design can be conceptualized as a 2(expected meeting/no expected meeting) x 2(knowledge of others opinions/no knowledge) factorial that is augmented by two comparison conditions. In both comparison conditions, subjects expect to meet with one of two people to discuss their decisions. In one condition they are told they will be meeting with someone who agrees with them, whereas in the other condition they are led to expect that the person disagrees with them. knowledge about two other subjects was presented so as to directly assess the effect of expected meeting with an agreeing other, a disagreeing other, or an other whose specific beliefs are unknown. Sex of subject and type of decision scenario (merit raise or reprimand) were also included in the design as control variables.

Materials

Decision Task. The decision task with which subjects were confronted consisted of a supervisory evaluation of policemen (see Appendix B). An "Evaluation of Patrol Officer Performance" sheet described the criteria for evaluation and emphasized the necessity of careful consideration in making supervisory decisions. The materials asked the subject to assume the role of an

officer review board member who is evaluating officers for either (1) a merit raise or (2) a reprimand.

For each of the review decisions, a short description of the officer under review is presented in an "officer review brief." These briefs describe the officer in a manner that makes the supervisory decision ambiguous. For example, pretesting of these materials indicated that for the merit raise decision, 56% decided to award, and 44% decided to withhold the raise (N=23). For the reprimand scenario, 55% of the subjects decided to issue, and 45 % decided to withhold the reprimand (N=9).

Measures. The primary dependent variables presented in a brief questionnaire (see Appendix B) were measured via the false consensus and assumed similarity questions typically asked in previous research (Ross et al. 1977; Marks, 1983). For example, subjects were asked what percent of their peers would reach the same decision as they had -- this constituted the traditional false consensus measure. In the results, false consensus is discussed in two ways. First, a global measure of false consensus was used by comparing frequency estimates of others choosing Option 1 for those who chose Option 1 versus those who chose Option 2. This is similar to the method used by Ross et al. (1977). In

addition, comparisons between cells used the estimates of frequency of own choice, i.e., the mean consensus estimates of own choice averaged across those who chose Option 1 and Option 2 to produce a mean cell estimate of consensus (cf. Sherman et al., 1984).

For the measure of assumed similarity subjects were asked to indicate whether or not specific target persons (best same sexed friend, favorite teacher, person most disliked, etc.) would make the same decision. The present set of target persons differed somewhat from those used by Marks (1983). In his study, 12 targets were presented, including both same and opposite sexed persons most liked, and those most disliked, an acquaintance, an admired actress or actor, favorite professor, favorite family member, and a family member that is not close. Based on Marks (1983), similar responses were scored 1, and dissimilar responses were scored 0. The total number of others the subject indicated would respond similarly served as a measure of assumed similarity (see Marks, 1983). Previous work using this type of measure has not reported the reliability of the scale. However, the reliability of the present scale was poor (standardized alpha .45).

Subjects were also asked about their sex, their confidence regarding their decision, and how confident they thought others would be about their decision.

In the expected meeting conditions, subjects were asked whether they thought they would be meeting someone who had made the same decision as themselves or someone who had chosen differently. Also in the expected meeting conditions, subjects were asked if they thought they would be meeting with a male, a female, or if they had an equal chance of meeting a male or a female. Finally, subjects were asked to indicate how they felt about meeting with an other (or how they might feel for those in the no meeting conditions) by indicating their attitudes on seven bipolar adjectives presented at the end of the session. Three of these adjectives (comfortable, relaxed, and anxious) were included to provide a measure of general comfort with meeting another subject.

Procedure

Subjects were run in groups of up to six individuals at a time. They were asked to report to separate locations so they did not see each other. On their arrival at the research site, the subjects were placed in cubicles, where they were introduced to the general procedures of the study. After being provided with preliminary information, subjects were asked to wear headphones (as a precaution to prevent

them from hearing the voices of other subjects). Subjects also were presented with a general information sheet titled "Supervisory Decision Making," which reviewed the process in which they were about to participate. At this point, the subject was asked to read, sign and date a Psychology Department consent form. After subjects consented to participate in the study, they were asked to read one of the scenarios, described above, and come to a decision concerning an action they would take if they were in the position of a supervisory review board member.

Following the decision phase, subjects were systematically given information concerning (1) the decisions of the two subjects in other cubicles, and (2) information regarding their expected meeting (see Appendix B for details). Some subjects, were not given any information about the participants in other cubicles (cells A, B, see Table 2; these cells replicate the research of Miller and Marks, 1982). Other subjects received information that one of the other subjects agreed with them and one subject disagreed with them, and they were led to believe that they would meet (a) an agreeing other (cell D), (b) a disagreeing other (cell E), (c) a person who either agreed or disagreed with them (cell C), or (d) they did not expect a meeting, but

they knew one person agreed and one person disagreed with them (cell F).

RESULTS

Manipulation Checks

A manipulation check was included to determine if subjects in the expected meeting conditions (meet agreeing or disagreeing other) were cognizant of their partner's decision. Subjects in the expected meeting condition were asked how they thought their partner decided. In the condition where subjects expected to meet an agreeing other, all 23 subjects said they expected to meet with an agreeing other. Similarly, in the condition where subjects expected to meet with a disagreeing other, all 23 subjects endorsed the item indicating that they anticipated meeting a disagreeing other. These results indicate that the manipulation of information about the partner's decision was successful.

It is possible that expecting to meet with a same sexed other might facilitate false consensus. Although subjects did not see the person he or she expected to meet, a check was used to determine if subjects perceived an equal likelihood of meeting with a male or female partner. When presented with the question "Do you have a guess whether the person you will meet is either

male or female?" A majority of the 90 subjects in the expected meeting conditions endorsed the item indicating there was an equal chance that their partner was male or female (n = 54), whereas less than half that number believed that their partner was male (n = 23) and even fewer believed that their partner was female (n = 13). A Chi-Square analysis indicated that the discrepancy of endorsement was greater than that expected by chance alone $X^2(2) = 30.43$, $p < .01$. Table 3 presents the frequencies with which subjects indicated they expected to meet a male or female partner as a function of subject sex. When broken down by condition, there were no differences between conditions in their endorsement of this item, $X^2(6) = 5.04$, $p > .5$. The results suggest that in general subjects had few expectations regarding the sex of their partner -- though males tended to expect a meeting with a male to a greater extent than females tended to expect a meeting with a female.

A second measure regarding sex of the partner asked subjects in the expected meeting conditions if they had thought about the sex of their partner when making their decision regarding the proportion of other undergraduates who would make the same decision they had made. Seventy-two subjects responded to this question. About two thirds of the subjects (n = 50) indicated that they

did not have a guess about their partner's sex, whereas less than a third (n = 22) indicated that they thought about the sex of their partner at this time X^2 (1) = 10.65, $p < .01$ (18 subjects did not answer this question). There were no differences between conditions in the endorsement of this item, X^2 (3) = 2.89, $p > .4$.

Table 3

Frequency Count Indicating the Number of Male and Female Subjects Who Indicated that Their Partner Was More Likely To Be Male, Female, or had an Equal Chance of Being Either Male or Female

	Likely Sex of Partner		
Subject Sex	Male	Female	Equal Chance
Male	16	4	23
Female	7	9	31

Relationship Between Consensus Estimates and Assumed Similarity

A Pearsons correlation was calculated to examine the relationship between assumed similarity and false consensus. For the entire sample, there was a moderate relationship between estimates of consensus and assumed similarity, r (137) = .16, $p < .03$. However, when separated into knowledge and no knowledge groups, it became apparent that knowledge about others affected the relationship between the two variables. In the No knowledge condition, the relationship between estimates of consensus and assumed similarity was moderately strong, r (45) = .37, $p < .006$, whereas the knowledge conditions evidenced a weaker correlation, r (92) = .07, $p < .3$. Thus, the anticipated high degree of association between assumed similarity and false consensus across all conditions was not confirmed. Because of these unexpected results, a separate correlation was computed for each cell. The resulting values, which are presented in Table 4, reveal a strong relationship between assumed similarity and false consensus in two cells (A, D).

As indicated previously (p. 6), the measurement of false consensus can be defined in several ways. Using the operational definition of false consensus outlined by Ross et al. (1977), there was a significant false consensus effect for all six

conditions, i.e., comparing the estimates of consensus for those who chose option 1 versus those who chose option 2. The main effect for choice across conditions was substantial, F (1,125) = 82.08, $p < .001$. For the relatively more complex task of discerning the effect of expected meeting and knowledge about others, a procedure similar to that used by Sherman et al. (1984) was used. In their procedure, Sherman and his colleagues used the combined estimates (across decision) of consensus and used planned comparisons to test their hypotheses.

Table 4

Correlations Between Assumed Similarity and False Consensus Broken Down by Cell

	No Knowledge about others	Knowledge that one person agrees and one person disagrees	
		Meet Either Person	Meet Agreeing Other	Meet Disagreeing Other
Expected Meeting	A: .56 (22)	C: -.13 (23)	D: .08 (23)	E: .07 (23)
No Meeting Expected	B: .13 (23)	F: .42 (23)		

Note: Correlations greater than .40 are significant at $p < .025$. Cell sizes are presented in parentheses.

Planned Comparisons

A series of planned comparisons were used to test the experimental hypotheses. First, it was hypothesized that, similar to Miller and Marks (1982), expected meeting would facilitate the tendency to assume similarity and to make false consensus judgements. Miller and Marks used a measure of assumed similarity in their study, and a similar pattern of results was expected for both the false consensus and the assumed similarity measures.

Basic and Conceptual Replication of Miller & Marks (1982).

Assumed Similarity. Assumed similarity was measured by asking respondents to indicate how they thought specific others, e.g., best friend, favorite teacher, the person most disliked, etc. would decide if provided with the same information with which they were provided. The number of times a subject indicated that a target person would choose as they had chosen served as the measure of assumed similarity. The scale of the assumed similarity measure has a range of 0 to 5. As hypothesized, a comparison of the expected meeting/No knowledge group (A) and the no expected meeting/No knowledge group (B) replicated the assumed similarity effect demonstrated by Miller and Marks. Table 5 presents the relevant means. expected meeting (A) facilitated assumed similarity relative to the no

expected meeting (B) group t (131) = 1.69, $p < .05$. The parallel comparison for subjects who had knowledge about others and expected a meeting (C) did not differ from subjects who had knowledge about others but did not expect a meeting (F) t (131) = .32, $p > .75$.

Estimates of Consensus. Consensus was measured by asking subjects what percent of undergraduates would make the same decision they had made in the supervisory task if they had been provided with the same information.

Table 5

Mean Assumed Similarity as a Function of Expected Meeting and Knowledge About Others

	No Knowledge about others	Knowledge that one person agrees and one person disagrees	
		Meet Either Person	Meet Agreeing Other	Meet Disagreeing Other
Expected Meeting	A: 3.82 (.85)	C: 3.65 (1.03)	D: 3.52 (1.2)	E: 3.48 (.85)
No Meeting Expected	B: 3.35 (.83)	F: 3.74 (.75)		

Note: Higher scores indicate greater assumed similarity. Numbers in parentheses are standard deviations.

Thus, the scale of the false consensus measure had a potential range of 0 to 100. According to the hypotheses, subjects in the expected meeting condition should have reported greater estimates of consensus than subjects in the no expected meeting condition. Although the false consensus measure did show the same pattern of results as the assumed similarity measure, the difference between expected meeting/no knowledge (A) did not differ from the no expected meeting/no knowledge group (B) t (131) = .84, $p > .40$. (Table 6 presents the relevant means.) Similarly, in the conditions in which subjects were told that one person agreed with them and one person disagreed with them, there were no differences between the expected meeting condition (C) and the no expected meeting condition (F) t (131) = 1.74, $p > .09$, two-tailed. In fact, if anything,the observed trend (C < F) of the false consensus measure was opposite the hypothesized relationship (C > F).

Focal Comparisons

It was hypothesized that subjects who expected to meet with an agreeing other would experience less anxiety and therefore, assume less consensus than a subject who did not know whom they would meet, or who expected to

Table 6

Mean False Consensus Estimates as a Function of Expected Meeting and Knowledge About Others

	No Knowledge about others	Knowledge that one person agrees and one person disagrees		
		Meet Either Person	Meet Agreeing Other	Meet Disagreeing Other
Expected Meeting	A: 66.27 (18.14)	C: 57.83 (20.27)	D: 65.44 (9.76)	E: 63.30 (14.97)
No Meeting Expected	B: 62.22 (16.04)	F: 66.22 (16.32)		

Note: Higher scores indicate greater false consensus. Numbers in parentheses are standard deviations.

meet with another subject who did not agree with them on the supervisor decision (Hypothesis II). The planned comparisons (C, E > D) examined consensus and assumed similarity for subjects in the knowledge conditions where C) they do not know who they will meet, D) they expect to meet an agreeing other, and E) they expect to meet a disagreeing other. The results indicated that for the consensus measure there was no difference between meeting an unknown other (C) and meeting an agreeing other (D), t (131) = -1.58, p > .11. One Hypothesis (III) predicted a difference between meeting an agreeing

or a disagreeing other (E > D). However, there was also no difference between meeting an agreeing (D) or meeting a disagreeing (E) other, t (131) =.44, p > .65.

The similarity measure, yielded an equivalent pattern of results; for the C -D comparison, t (131) = .48, p > .6, and for the E - D comparison, t (131) = .16, p > .8. These results indicate that relative to subjects who expect to meet with an agreeing other, neither expected meeting with a disagreeing other nor expected meeting with a person whose decision is unknown generates more consensus or greater similarity judgements than expected meeting with an agreeing other.

Also contrary to predictions, expected meeting with a disagreeing other (E) did not facilitate false consensus relative to the appropriate no expected meeting group (F) t (131) = .61, p > .5. Nor was there a difference between these two groups on the assumed similarity measure. In fact, expected meeting with a disagreeing other generated slightly less assumed similarity than the No Meeting group t (131) = .95, p > .3.

Additional Tests of the Bolstering Hypothesis

Examination of the two conditions in which subjects expected to meet but did not know which subjects they would be meeting (Cells A, C) indicated that subjects tended to guess that they would be meeting someone who

had made the same decision as they had (N = 29), while fewer subjects guessed that others decided differently from themselves (N = 16) -- although this difference was only marginally significant, $X^2 = 3.75$, $p < .07$. Examining the estimates of consensus for subjects who expected to meet an agreeing versus a disagreeing other (combined across conditions A, C) indicated that subjects who expected to meet an agreeing other (M = 69.07) had a higher estimate of consensus than subjects who thought that they would meet with a disagreeing other (M = 49.06), F (1, 41) = 13.53, p = .001. These findings indicate that among subjects in conditions where the information regarding the other's decision was not manipulated, those who expected to meet a disagreeing other did not attempt to bolster their decision by assuming a high degree of consensus. This finding is consistent with the comparison between expected meeting with an agreeing (D) versus a disagreeing (E) other presented above.

Effect of Information About Others' Decisions

Planned comparisons were performed on the assumed similarity measure and the false consensus measure to examine the effects of knowledge about others' judgements. It could be argued that information

regarding others' decisions (e.g., that one person agrees and one person disagrees with the subject) would tend to depress false consensus and assumed similarity. For the assumed similarity measure, a comparison of the expected meeting/no knowledge (A) indicated that subjects did not assume more similarity in the knolwedge condition (C), t (131) = .60, $p > .50$. Similarly, in the no expected meeting conditions, the no knowledge condition (B) did not differ from the knowledge condition (F) t (131) = 1.42, $p > .15$.

For subjects in the expected meeting condition, knowledge depressed false consensus (C) relative to the no knowledge group (A) t (131) = 1.74, $p < .042$. But, contrary to predictions subjects in the no expected meeting knowledge group (F) had a somewhat higher consensus estimate than subjects in the no knowledge condition (B) t (131) = -1.75, $p < .09$. Note that the estimate of two thirds agreement by the knowledge conditions is what should be expected by a rational incorporation of the information that two people hold one opinion and one person holds a different opinion.

Confidence About Decision and False Consensus

Marks (1983) previously demonstrated a link between opinion certainty and false consensus. The correlation between opinion certainty and false

consensus was also examined in the present study. Immediately following their supervisor decision, subjects were asked to indicate on a five point scale from very uncertain to very certain how positive they were that they had made the best possible decision. Contrary to Marks' predictions there was not a significant relationship between confidence and false consensus $r(136) = .13$, $p > .065$. There was no restriction in range in either the certainty measure or the consensus measure to account for the difference in correlations between Marks' (1983) work and the present study. In contrast, when subjects estimated the degree of confidence others would have about their decisions, confidence correlated with their estimates of consensus with r's =.39, .47, and .39 for (p's < .01) entire sample, no knowledge, and knowledge conditions respectively.

Anxiety

A series of seven bipolar adjectives were presented to subjects following the false consensus and assumed similarity questions which asked them to indicate how they felt about meeting with another subject (in the no meeting conditions they were asked to indicate how they would feel if they had expected to meet with someone in the present study). Of the seven adjectives, three related to how comfortable the subjects felt about

meeting with another subject (these included comfortable, relaxed, and anxious.) The "anxious" item was recoded to reflect relaxation or comfort. The three items were summed to create a composite measure of comfort (Standardized alpha = .63). The possible scale values could range from 3 to 15, where 15 indicated that the subject felt very comfortable about meeting with another person. Table 7 presents the relevant means.

Table 7

Mean Level of Comfort as a Function of Expected Meeting and Knowledge About Others

	No Knowledge about others	Knowledge that one person agrees and one person disagrees		
		Meet Either Person	Meet Agreeing Other	Meet Disagreeing Other
Expected Meeting	A: 7.18 (3.46)	C: 7.43 (2.64)	D: 6.74 (2.92)	E: 7.13 (1.35)
No Meeting Expected	B: 8.22 (1.80)	F: 6.67 (1.44)		

Note: Higher scores indicate greater comfort with meeting others. Subjects in the no expected mmeting conditions were asked to estimate how anxious they would feel if asked to meet with another subject. Numbers in parentheses are standard deviations.

A 2(subject sex) X 6(condition) X 2(reprimand or merit raise scenario) ANOVA of the anxiety measure was also performed. Overall, subjects felt moderately comfortable, Grand Mean = 7.50. There were no significant main effects or interactions. Table 8 presents the relevant means.

Table 8

Mean Level of Comfort with Meeting Others for Male and Female Subjects as a Function of Expected Meeting and Knowledge About Others

	No Knowledge about others		Knowledge that one person agrees and one person disagrees		
		Meet Either Person	Meet Agreeing Other	Meet Disagreeing Other	
Expected Meeting	A	C	D	E	
Male	5.82	8.27	7.50	7.45	
Female	8.55	6.67	6.15	6.83	
No Expected Meeting	B	F			
Male	7.82	6.73			
Female	8.58	6.42			

DISCUSSION

The goal of the present research was threefold. First, it attempted to extend the work of previous investigators in the area of assumed similarity who have

shown that expected meeting facilitates this type of belief. It was expected that past findings would be replicated, and, in addition, expected meeting with a disagreeing other would further facilitate assumed similarity even more than expected meeting with an other whose opinions were unknown. Second, it attempted to demonstrate differences in estimates of consensus as a function of expected meeting. In particular, it was hypothesized that, as with assumed similarity, expecting to meet with another person to discuss a recent decision would heighten estimates of consensus relative to individuals who did not expect to meet someone. And, it was hypothesized that expecting to meet with a disagreeing other would increase anxiety or need for social support, and that these needs would facilitate false consensus. Three, in general, the present study attempted to clarify the role of motivational and nonmotivational components in false consensus.

Replication of Miller and Marks (1982)

The observed differences between expected meeting and no expected meeting groups on the measure of assumed similarity, which replicated those of previous studies, are not readily explained by a nonmotivational interpretation. Among the possible nonmotivational explanations, selective exposure is not viable, since the amount of information regarding others is constant between

the two comparison conditions. Nor are there differing perspectives to cause subjects to make errors in attribution. Moreover, it seems unlikely that there are differences in the availability of the information between expected meeting and no expected meeting groups.

On the other hand, the observed projection of similarity onto others may have had some motivational basis. In Miller and Marks' (1982) study, subjects projected their verdicts onto peers whom they had not previously met. The authors suggested that in this situation where the subject was asked to discuss to consensus a court case, subjects would exaggerate the similarity of their viewpoints with an immediately present other in order to reassure themselves that the impending social interaction would be smooth, harmonious, and pleasant. In contrast, the present study did not allow the kind of directly self serving response possible in the Miller and Marks study. Subjects were asked to predict how specific others (e.g., best friend, favorite family member, etc.) would choose if given the same information. Thus, the present design allowed some clarification of one concern voiced by Miller and Marks. They wondered whether or not the tendency to project one's opinion arose simply from the required consensus decision in the forthcoming interaction or whether

concern with establishing and maintaining a sense of social support for and agreement with one's views motivated projection. The present findings tend to support the latter contention, since similarity was assumed for targets with whom the subject did not intend to immediately interact.

The failure to replicate the expected meeting effect demonstrated by Miller and Marks (1982) on the consensus measure was one of the most suprising results of the present study. It is unclear why subjects would give higher estimates of assumed similarity under conditions of expected meeting, yet not estimate higher levels of false consensus. The assumed similarity results are consistent with those of Miller and Marks who found that subjects assumed similarity with a specific, previously unknown other. But, the present results are only partially consistent with the findings of Marks (1983) who found that subjects projected their own responses onto both their general peer group (i.e., demonstrated false consensus) and assumed similarity with specific acquaintances of the subject.

Although subjects assumed both consensus and similarity in Marks' study, one qualification should be noted. In Marks' (1983) study subjects were asked to make a decision regarding the guilt of a suspect in a realistic trial. Subjects were asked to respond either guilty or not

guilty. Subjects who endorsed a guilty verdict, clearly estimated that a majority of others would agree with them (i.e., demonstrated a bias in their estimates of consensus), whereas those who endorsed a not-guilty verdict predicted that approximately half would find the suspect guilty and half would find the suspect non-guilty. In contrast, regardless of verdict, subjects overestimated the extent to which specific others would agree with them (i.e., they assumed similarity). Marks' (1983) results suggest that overestimation of consensus may only occur in circumstances where subjects' choices may be costly, regrettable, personally or morally repugnant. It is possible that the manipulation used in the present study did not generate such strong reactions from subjects.

One palusible explanation for these findings is that the manipulation of meeting and information about others did not have the anticipated effect of raising anxiety. It was hypothesized that expected meeting with others would raise anxiety and create a need to bolster one's sense of social support. However, an appropriate manipulation check of anxiety was problematic. If assuming consensus reduces situational anxiety, then measuring anxiety following assessment of consensus (as in the present study) should show no differences in anxiety between groups. On the other hand, if anxiety is

measured before estimates of consensus, this identification of one's internal state might affect estimates of consensus. In either case, an appropriate manipulation check of anxiety was missing from the present study. And, it is possible that anxiety was not generated.

I also had predicted that under the knowledge conditions where subjects did not know whom they would meet (C, F), the results of both the false consensus and assumed similarity measures would be similar to those in the no knowledge conditions. However, this was not the case for either the false consensus or the assumed similarity measure. If anything, the results for the false consensus measure were opposite to what was predicted. Subjects who did not expect a meeting made higher estimates of consensus than subjects in the expected meeting condition. It appears then, that knowledge about others' decisions and expected meeting had an unanticipated effect on estimates of consensus.

Consistent with the position of Sherman et al. (1984), who predicted that subjects would make higher estimates of consensus under conditions of failure, I predicted that subjects who were faced with meeting a disagreeing other would make higher estimates of consensus relative to subjects who expected to meet with an agreeing or an unknown other. However, these predictions were not

supported. The results may, in part, be attributable to the unexpected effect of information about others discussed above (p.64). Yet, the relative differences between the expected meeting/no knowledge condition (Cell A) and the expected meeting/knowledge conditions (Cells D, E) are not great, so it is likely that any moderating effect of knowledge cannot entirely account for the failure to conceptually replicate the findings of Sherman et al. (1984).

One plausible explanation for the overall similarity between expected meeting conditions is that contrary to predictions, information about others constrained and stablized subjects' estimates of consensus. Rather than heighten concerns with being correct, information about others may have simply reinforced subjects' belief that "most others believe as I do." That is, information about others probably failed as a manipulation of subjects' motivational state. Rather than heighten anxiety, the information may have been used deductively and then, was not interpreted in motivational terms.

A similar, though more potent manipulation of opinion projection might be achieved by first telling subjects that there is an objectively correct or incorrect solution to the decision they are making, to provide them with success/failure feedback, and then telling them they will be meeting someone who either

succeeded or failed. It is possible that such a manipulation would create conditions (e.g., subject "failed," other "succeeded") which may better elicit a defensive state where opinion projection would be likely.

Threats To Esteem - A Potential Underlying Mechanism

The previous discussion suggests that direct threats to the self should heighten opinion projection. Using this perspective, some of the previous research in the area of false consensus may be interpreted within an esteem framework. Although Sherman et al. (1984) suggested that subjects assumed consensus to bolster their sense of social support, their manipulation of success/failure may have functioned as a manipulation of self-esteem rather than a manipulation of social support. In contrast, the present study manipulated the degree of objective and anticipated social support for one's opinion. This difference between the two studies, and the resulting differences in results, suggest that a more direct threat to self may be necessary for arousing differences in false consensus. The work by Krahe, who also gave subjects feedback regarding success or failure lends itself to a similar interpretation of opinion projection.

In addition, the findings of other research are also consistent with the interpretation that false

consensus is an esteem related mechanism. For instance, Sherman, Pressin, Chassin, Corty, Olshavsky (1983) examined estimates of smoking behavior in middle school students, high school students and adults. Their results indicated that middle school students were more likely to make false consensus judgements regarding smoking behavior than were their older counterparts. The authors suggested that their results could be attributed, in part, to several different factors including selective exposure and need for social support. However, it may be the case that there are age differences in the use of smoking behavior as a bolstering mechanism for self-esteem; e.g., middle school students might use smoking behavior as a partial contributor to a sense of self-importance. Whereas adults use smoking, for this purpose, to a lesser extent as an indicant of status, self-importance and maturity. Thus, the potential explanations for false consensus Sherman et al. (1983) proposed may in fact involve variables which covary with self-esteem needs.

Further, the work by Messé & Sivacek (1979), who used a confrontational situation, showed that subjects who were more likely to guess an other acted as they had in a Prisoner's Dilemma when that person was an "opponent" than when she was someone in a different dyad. Their results suggested that subjects seek to

justify their responses, possibly because they felt culpable for an act which could be perceived as negative. It is possible that subjects perceived more similatity with opponents to maintain their esteem, and feel good about their decision.

Increased belief projection (whether similarity or consensus) then, may be one type of self-serving bias which people use to enhance postive feelings about themselves. Such a view would suggest that false consensus is one means of actively ehancing oneself and as such, it is a reflection of motivational forces -- call it need for self-esteem. Some indirect and anecdotal evidence exists for such a position. For instance, work on self- serving bias has shown that individuals who tend to explain their behavior with the greatest amount of self-serving bias also tend to score high on measures of self-esteem (Ickes & Layden, 1978). More importantly, Abramson and her colleagues (Alloy and Abramson, 1980) have found that depressed people, who tend to be low in self-esteem, also tend to be accurate in their responsibility for failure, whereas others tend to attribute failure to other factors. Thus, depressed individuals tend to show little self-serving bias. Is it possible that depressed subjects would make less self-enhancing (more realistic) estimates of consensus than non-depressed, high self-esteem individuals? If so, this pattern of responses would challenge a cognitive

explanation of belief projection which assumes that (given equivalent levels of information processing ability) high and low self-esteem individuals should demonstrate an equivalent amount of false consensus/belief similarity bias.

However, the relationship between consensus estimates and esteem is probably much more complex than that outlined above. Crocker (1985), for example, has suggested that differences in esteem and actual status of position may interact to influence stereotyping. For instance high esteem individuals in high status positions tended to make fewer stereotyped attributions than did high esteem individuals in low status positions. Similarly, these variables may interact to influence the degree of false consensus demonstrated by subjects under similar circumstances. Subjects who are high in esteem needs (and potentially unfulfilled, i.e., holding low status positions) would be expected to make much greater estimates of consensus than subjects whose esteem needs are presently satisfied (i.e., high esteem subjects who presently hold high esteem positions).

Stable Self-Serving Perception and Opinion Projection

As the previous discussion suggests, the robust nature of self-serving perceptions has been extensively demonstrated. What is unclear, though, is the extent to relatively pervasive, the extent to which it can be manipulated, and (based on the depth, breadth, and stability of the phenomenon) the relative importance of opinion projection as a psychological phenomenon.

There is a body of research which indicates that egocentrism is a pervasive human quality. Myers (1983) has suggested that people have a tendency to think of themselves as above average on most if not all socially valued dimensions. For example, of nearly a million high school students who were asked to respond to a question regarding their abilities, 70 percent rated themselves as above average, and only 2 percent as below average in leadership ability. Similarly, none of the students rated themselves below average in the ability to get along with others.

People tend to demonstrate an egocentric bias on many other dimensions as well. For instance, they tend to predict that they will live longer than that projected by actuarial tables (Larwood, 1978). And, even most drivers who have been hospitalized for auto accidents believe that they are better than average drivers (Svenson, 1981). One striking similarity between these

results is the relative stability of the positive self-perceptions -- even in the face of strong disconfirming evidence.

Given the strong evidence regarding the pervasiveness of self-serving biases, the results of the present study, and those of previous research, one must ask are manipulations of opinion projection really significant? This question is asked in a rhetorical, not in a statistical sense. Is the behavior both extensively expressed, and sufficiently variable across individuals or situations to be of interest to psychologists? This is a question for which no easy answer can be supplied. However, I would suggest that some interesting questions could be addressed in this area. Accordingly, I have discussed some directions for future research below.

DIRECTIONS FOR FUTURE RESEARCH

Given the limitations of the present study, the question becomes, what should be the direction for future research? For cognitive factors, one potential starting point might involve manipulating the particular components that are thought to influence attitude accessibility, e.g., repetition, emotional interest, concreteness, and spatial and temporal proximity. For motivational factors, attempting to promote states of arousal or anxiety (as in the present study) in ways that the arousal is directly measureable, and the

manipulation of esteem provides the basic starting points for examining the link between opinion projection and motivation more directly.

Cognitive Manipulations

Recent research by Powell and Fazio (1984) has provided some support for the notion that repeated attitudinal expression may enhance attitude accessibility. Their study simply asked subjects to repeat their attitudinal responses in a lengthy questionnaire where they were asked their opinion once or several times. Their attitudes were subsequently assessed on a reaction time measure. Given the link that repeated attitudinal expression enhances accessibility, and the hypothesis that accessibility enhances false consensus, repeated attitudinal expression should enhance false consensus. Thus, a simple and appropriate test of the availability hypothesis would ask subjects to repeat their attitudinal reaponses and subsequently ask for estimates of false consensus. A critical control group could be formed by asking subjects to think about and repeat the attitudes opposite their own.

A second, hypothesized means of enhancing accessibility involves increasing the "emotional interest" of the object of the attitude. However, it is not completely clear whether one would call this interest enhancement a cognitive or a motivational influence --

if anything, it is probably a combination of the two. In any event, if subjects were provided with a task that had "real" as opposed to pallid consequences, a greater degree of accessibility and false consensus might be anticipated. Although some disconfirming evidence for this hypothesis already exists -- Marks (1982), showed that issue involvement had no effect on consensus estimates -- other operational definitions of emotional interest might produce the effect postulated by cognitive theorists.

Nisbett and Ross (1980) suggest that availability is also enhanced by stimuli that are proximal in time or space. It seems likely that manipulating the time period between decision and the assessment of opinion projection could affect the impact of availability. By implication, if availability affects false consensus, time of consensus assessment should affect the magnitude of consensus estimates. Yet, there may be one problem with this line of reasoning. Manipulating the time of measure probably will not affect consensus estimates for issues that have a high degree of contemporary social relevance (i.e., abortion, see Appendix A) since the availability of attitudes regarding these issues are likely to remain stable. Moreover, a similar problem could be evidenced with the use of novel stimuli which provide the subject with a unique, interesting

experience. Even if the subject is assessed days later, the novelty may induce an enduring availability effect. Thus, the general notion that temporal or spatial proximity can raise availability seems generally reasonable. But, such an effect may only occur under certain circumstances which are not particularly generalizable or particularly psychologically interesting.

In line with research and speculations about attitude availability, recent work on direct and indirect experience may serve as a potential perspective from which to address the availability/false consensus issue. Fazio and his colleagues have examined the effect of direct experience on attitude-behavior consistency. It seems likely that direct versus indirect experience would also be seen by cognitive theorists as a potential means for enhancing accessibility and examining its impact on false consensus.

Attribution

A further area of study for false consensus includes a comparison of attitude accessibility to attributional causes of false consensus. Gilovich, Jennings and Jennings (1983) demonstrated that subjects who were led to believe that their decisions were related to dispositional factors made lower estimates of consensus than subjects who were led to believe that

their decisions were due to situational factors. In the area of objective self-awareness (OSA), researchers have noted that subjects who are objectively self-aware are more likely to make dispositional attributions than subjects who are not self-aware. Given this finding, it is reasonable to speculate that subjects who are made objectively self-aware will make lower estimates of consensus than subjects who are not made self-aware. But, there is indirect evidence to support the opposite prediction. While objective self-awareness is purported to facilitate dispositional attributions, it is also purported to enhance concentration on one's own decision. In essence, self-awareness should enhance rehearsal of one's own opinion, and hence make one's own opinion highly salient. Thus, under conditions of objective self-awareness, subjects should hold highly available, dispositionally based beliefs. If false consensus is the cold cognitive phenomenon that Ross and his colleagues have suggested, one would hypothesize that high attitude availability under conditions of high self-awareness would lead to an overestimation of consensus. Whereas, an attributional perspective would suggest that subjects who were high in self-awareness would not overestimate consensus.

Given Wicklund's (1972) discussion of objective self-awareness, a delineation of false consensus as a

motivational or nonmotivational phenomenon is still problematic. Wicklund suggests that self-focused attention leads to self-evaluation, which, in turn creates either self-exaltation or self-criticism. In either case, OSA may engage an esteem component which confounds its expected effect on availability. If, using a reaction time measure, no differences in availability were demonstrated between high and low objective self-awareness conditions, inferences regarding the relative contribution of esteem and attributional focus could be made.

Adding Confirmatory Evidence - When Does It Enhance Consensus Estimates?

Yet another question concerns whether or not individuals will demonstrate a greater bias toward self when there is additional confirmatory evidence. I would suggest that, in fact, the bias would not be appreciably enhanced. For instance, the results of the present study indicated that regardless of condition (amount of information present) subjects estimated consensus at a level of approximately 65 percent. Even with the use of materials where the actual decision split was dramatic (80/20) consensus estimates remained at approximately the same level. It may be quite reasonable to argue that false consensus is a fairly stable phenomenon which requires a strong manipulation, like threat to self-

esteem to enhance or depress estimates of consensus.

The Use of Personal Estimates of Base Rate

One result of the present study showed that consensus estimates of subjects who were not told whom they were to meet (agreeing or disagreeing other) made dramatically different estimates of consensus when their estimates were broken down according to whom they guessed they would be meeting. Subjects who had made low estimates of consensus (M=49.06) tended to believe that they would be meeting with someone who disagreed with them. On the other hand, subjects who made high estimates of consensus tended to believe that they would be meeting with someone who made the same decision as they had (M=69.07). This pattern of results suggest that subjects' estimates regarding particular cases may be based on their own subjective estimate of the base rate.

If, as indicated in the present study, subjects do make predictions based on their own estimate of the base rate, it is possible, if not probable, that much of the work done by Kahneman and Tversky has misinterpreted a critical element in their investigation of the prediction process. They suggested that individuals' sense of base rate did not influence estimates in prediction problems where some artificial base rate was given. However, it may very well be the case that

subjects do use their own subjective estimates in the prediction of frequency and probability.

Motivational Manipulations

As discussed previously, there may be a number of potential motivational causes of false consensus. First, consensus might be heightened by a private need for social support. For example, false consensus might serve the purpose of providing a private affirmation of correctness. Second, consensus might be affected by a public justification of behavior. Subjects may assume consensus as a means of publically enhancing themselves or publically mitigating their culpability in a potentially negative situation. Or, both of these may fall under a general need for esteem maintainance. Still more generally, false consensus might be a function of hedonic relevance, as demonstrated by Crano (1983).

The thrust of future research examining the motivational perspective will need to develop adequate manipulation checks for perceived social support, anxiety, esteem and hedonic relevance. For instance, it is unclear the extent to which false consensus may be used as a general means of reducing state anxiety. If a general rise in arousal is interpreted as social anxiety, other methods of inducing arousal could be used to test the motivational perspective of false consensus. Rather than just speculating that arousal has taken

place, such arousal might be assessed using a direct method of physiological measurement - e.g., heart rate, galvonic skin response, etc. Such measurements have been used in previous research on dissonance. For instance, they have demonstrated the hypothesized differences in anxiety between dissonance and non-dissonance conditions (Croyle & Cooper, 1983).

As suggested previously, very little work has been done that directly examines the relationship between esteem and false consensus. Yet, there appears to be a strong similarity between the manipulations of self-enhancement, self-justification and esteem, and their effect on consensus. One direction for future research is to address esteem as a general factor affecting false consensus.

Most importantly, advocates of the motivational perspective will have to convincingly control the extent to which cold cognitive factors influence opinion projection if their explanation is to be taken seriously. In order to do this, researchers will need to use measures of attitude availability, or other cognitive paradigms, to demonstrate equivalent levels of availability between motivated conditions.

SUMMARY

The present study has, perhaps, generated more questions than answers. Among these questions, I asked how future research might provide better tests of

the availability explanation of false consensus. For example, it was suggested that repeated attitudinal expression might increase estimates of consensus. And, it was suggested that, if vivid information is more cognitively available, it too should enhance estimates of consensus. However, recent pilot studies fail to support either ot these predictions. (see Appendix A).

The observed stability of the consensus estimates across the experimental conditions raised questions regarding when evidence, confirmatory or disconfirmatory, will affect consensus estimates. It is clear from the present results that individuals did not inflate their estimates of consensus when they expected to meet with someone who held a different opinion than themselves. While other research using different materials may be able to generate differences in consensus using a manipulation similar to the one used in the present study, the present results tend to support the contention that the self-serving bias of opinion projection is a relatively stable phenomenon.

The relative effect of motivational mechanisms on false consensus was also discussed. Among the potential factors which might affect estimates of consensus, little has been done to identify the relative communality or differences between the

varied perspectives. It was suggested that self-enhancement, self-justification and need for social support all might fall under the general notion of esteem maintenance. Yet, one other perspective remains unreconciled with an esteem based explanation. Crano's (1983) vested interest research demonstrates that consensus can be enhanced by making threats to individuals' (non esteem related) rewards. What similarities or differences exist between the esteem threatening and concrete financial threats of Crano's paradigm? Or, what is it about people such that they make similar attributions following these threats? These questions remain to be answered by future research.

APPENDICIES

APPENDIX A: Additional Pilot Studies

Two additional pilot studies were performed to explore further the false consensus effect. Abtracts of these studies are presented below.

Study 1

It was hypothesized that the lack of differences in consensus estimates in the dissertation was due to task related issues. Specifically, it was possible that subjects did not see the task as interesting or important. In this pilot study, I used the issues of affirmative action and abortion to examine the effect of expected meeting with an agreeing or a disagreeing other.

The study took the form of a simple 2(Abortion/Affirmative Action) by 2(Meet Agree/Meet Disagree) by 2(Order of Issue) repeated measures factorial design. The subjects were 41 male and female undergraduates. After reading a short, neutral descrition of the issue, subjects were asked to indicate whether or not they supported the issue and wished the present laws to remain the same, or if they wished the laws would be changed. Subjects were then asked what percent of other undergraduates would decide as they had.

The results indicated no differences between expecting to meet with an agreeing (M=66.25) or a disagreeing other ($\underline{M}$=63.58), $F(1,37) = .48$, ns. And, there were no differences between consensus estimates for

order of presentation or task. These results indicated that expecting to meet with an agreeing versus a disagreeing other, even on important issues did not affect estimates of consensus. Such a finding led me to reconsider cognitive explanations of the false consensus phenomenon.

Study 2

I speculated that if false consensus is driven by attitude accessibility, then concentrating on one's own decision should increase accessibility and as a consequence inflate consensus estimates; and, distraction from one's own position should reduce accessibility and deflate consensus estimates. Female undergraduates (N=102) were asked to make the same supervisory decisions used in the dissertation. Following their decision, some subjects were asked to write arguments supporting their decision and repeat their decision either 1 or 4 times on several other pieces of paper which were to be used for "administrative purposes." Other subjects were asked to write out arguments which supported the decision which was opposite their own, and to repeat the opposite decision 1 or 4 times. After listing arguments and repeating decisions, subjects were assessed on the false consensus measure which asked what percent of undergraduates would make the same decision they had. Thus, the design was a

2(Repeat Own/Other Decision) by 2(Times Repeated 1 or 4) with an external control group which only read the materials and made the consensus estimate.

The results indicated no differences in consensus estimates between subjects who repeated their own decision and those who repeated the opposite decision. Consensus estimates ranged from 63 percent to 69 percent with a average standard deviation of 18.5. Nor were there any differences in the total number of arguments by subjects who listed their own supporting arguments versus those who listed arguments for the position opposite their own. No conclusions were drawn from these results.

APPENDIX B: Experimental Materials

EXPERIMENTER INSTRUCTIONS

1) Have a list of the names of the person(s) you are to meet for the experimental session.

2) Meet each subject individually at one of the specified locations.

A) Ask if they are waiting for the "Supervisory Decision Making" study, ask for their names.

B) If they are waiting for our study, introduce yourself, and lead them to room 201.

3) Ask the subject to have a seat. Explain the procedure using the exact language presented below.

We are interested in how people make supervisory decisions. Right now, we would like you to read these two pages to get an idea of what you will be doing today. To participate in the study, you need to read over the consent form, sign and date it. I have to seat other people who will also be participating, so I will have to be away for a minute. In order to cut down on distractions we would like you to wear these headphones. When you have finished reading the project description, slip the signed consent form under the door and I will be with you as soon as I can. O.K.? Do you have any Questions? O.K., I will be back in a minute.

O.K., Are you ready to begin? I am going to give you a series of supervisory decisions to make, and you will be asked to make one decision at a time. In each case, I will give you a description of a police officer who is up for either promotion, reprimand or a merit raise. It will be your job as a supervisor to decide how the officer will be treated. After you have carefully read the description, indicate at the bottom of the page how you would decide on this particular case. Once you have decided, slip your response under the door, and I will get back to you in a minute.

Instructions for Condition A:

Expected Meeting/No knowledge

I see that you have decided to _____.

In a few moments we would like to videotape a discussion between you and another subject about the officer review brief you just saw. We are interested in how people come to agreement on a decision, so we will ask you and the other person to try to reach a single decision on the case you just responded to.

But, before you discuss this review brief with the other person, we would like you to answer a few questions and make a few more supervisory decisions. Please read over the questions carefully and answer them to the best of your ability. Again, when you are done answering the questions, slip the questionnaire under the door.

(PRESENT FIRST SET OF QUESTIONS)

Wait for the subject to complete the questoionnaire.

You will not be meeting anyone to discuss the remaining supervisory decisions. Now, lets go onto the next officer review briefs. This packet contains two review briefs. read each one carefully, make a decision, and slip it under the door when you are done.

MUST MEMORIZE-put in words that are comfortable for you.

Now that you are all done with the decision making process we were going to have you meet with another person for a videotaped discussion. Unfortunately, we have been having some problems with our video equipment. Still, your participation has been very helpful and your data will still be of use to us. Thank you for participating.

Instructions for Condition A (continued)

Debriefing

In each case, provide the subject with a debriefing form. Never allow a subject to leave without going over the form with him or her.

Sign the subject's credit form

Thank them again for participating and dismiss each one individually.

Instructions for Condition B:

No expected meeting/No knowledge

I see that you have decided to _____.

In a few moments we would like you to respond to some other supervisory decisions. But, before you make more supervisory decisions we would like you to answer a few questions. Please read over the questions carefully and answer them to the best of your ability. Again, when you are done answering the questions, slip the questionnaire under the door.

(PRESENT FIRST SET OF QUESTIONS)

Wait for the subject to complete the questoionnaire.

Now, lets go onto the next officer review briefs. This packet contains two review briefs. read each one carefully, make a decision, and slip it under the door when you are done.

Instructions for Condition C:

Expected Meeting with Either Agree/disagree

I see that you have decided to _____.

In a few moments we would like to videotape a discussion between you and another subject about the officer review brief you just saw. We are interested in how people come to agreement on a decision, so we will ask you and the other person to try to reach a single decision on the case you just responded to. Most people who expect to meet someone to discuss an issue are curious about how the others decided. Of the other people who are participating in this in this study right now, one person made the same decision as you, and one person decided differently. I will flip a coin to determine which person you will be meeting to discuss the case.

But, before you discuss this review brief with the other person, we would like you to answer a few questions and make a few more supervisory decisions. Please read over the questions carefully and answer them to the best of your ability. Again, when you are done answering the questions, slip the questionnaire under the door.

(PRESENT FIRST SET OF QUESTIONS)

Wait for the subject to complete the questoionnaire.

You will not be meeting anyone to discuss the remaining supervisory decisions. Now, lets go onto the next officer review briefs. This packet contains two review briefs. read each one carefully, make a decision, and slip it under the door when you are done.

MUST MEMORIZE-put in words that are comfortable for you.

Now that you are all done with the decision making process we were going to have you meet with another person for a videotaped discussion. Unfortunately, we have been having some problems with our video equipment. Still, your participation has been very helpful and your data will still be of use to us. Thank you for participating.

Instructions for conditions D and E:

Expected Meeting with Agreeing/Disagreeing Other

I see that you have decided to _____.

In a few moments we would like to videotape a discussion between you and another subject about the officer review brief you just saw. We are interested in how people come to agreement on a decision, so we will ask you and the other person to try to reach a single decision on the case you just responded to. Most people who expect to meet someone to discuss an issue are curious about how the others decided. Of the other people who are participating in this in this study right now, one person made the same decision as you, and one person decided differently. I fliped a coin to determine which person you will be meeting to discuss the case. The flip came out so that the person you will be meeting:

D) MADE THE SAME DECISION AS YOU.

E) DECIDED DIFFERENTLY THAN YOU.

But, before you discuss this review brief with the other person, we would like you to answer a few questions and make a few more supervisory decisions. Please read over the questions carefully and answer them to the best of your ability. Again, when you are done answering the questions, slip the questionnaire under the door.

(PRESENT FIRST SET OF QUESTIONS)

Wait for the subject to complete the questoionnaire.

You will not be meeting anyone to discuss the remaining supervisory decisions. Now, lets go onto the next officer review briefs. This packet contains two review briefs. read each one carefully, make a decision, and slip it under the door when you are done.

Instructions for Condition F:

No Expected Meeting/One agrees-One disagrees

I see that you have decided to _____.

Some people are curious how others decided on the supervisory decision you just made. So, let me tell you that of the other subjects who are participating in the study right now, one person made the same decision as you, and one person decided differently.

In a few moments we would like you to respond to some other supervisory decisions. But, before you make more supervisory decisions we would like you to answer a few questions. Please read over the questions carefully and answer them to the best of your ability. Again, when you are done answering the questions, slip the questionnaire under the door.

(PRESENT FIRST SET OF QUESTIONS)

Wait for the subject to complete the questoionnaire.

Now, lets go onto the next officer review briefs. This packet contains two review briefs. read each one carefully, make a decision, and slip it under the door when you are done.

Officer Review Brief

Officer: Thomas Dayton

Years Employed: 12

Training Class Rank, Rank/Class size: 230/655

Officer Dayton successfully secures crime scenes and protects evidence despite occasional harrassment from citizens and the media. The officer is able to pull out the most important details of a witness' statements. Officer Dayton also uses the proper methods for approaching dangerous suspects. While on patrol, he makes sure to get to know the businessmen on his beat. Although the officer sometimes finds it difficult to cope with young people. Officer Dayton generally is seen as being courteous and friendly with various citizen groups and communicates in an unbiased manner. In addition, Officer Dayton's reports are short, neat amd written in good grammar.

In the last six months, the officer has been sent home twice for being intoxicated at report. He is presently under treatment with the staff psychologist and attends alcoholics anonymous. There are no documented incidents of alcohol interfering with the performance of his duty. Officer Dayton is sometimes late for meetings, and he has been known to be antagonistic toward his supervisors. Yet, his performance is generally solid.

Note. Merit pay increases should be applied to officers who demonstrate above average performance. They should not be handed out as a matter of course. Please give all your decisions serious consideration.

As a supervisor would you

1) Award the Merit pay increase_____

2) Withhold the Merit increase_____

How confident are you that you made the best decision regarding the merit pay evaluation?

Not at all confident____:____:____:____:____Very Confident
1 2 3 4 5

Officer Review Brief

Officer: Mark Martindale

Years Employed: 3

Training Class Rank, Rank/Class size: 453/480

Officer Martindale appears to have a good rapport with the public. He accepts criticism well and is very interested in his work. Most of Officer Martindale's reports are well written. He is good on the radio, saying only what is necessary. The officer attempts to handle additional case assignments when his own are completed, and he often works on cases while off duty. Officer Martindale is calm and deliberate in his actions, but he seems to think he knows more than he does.

In the last month, Officer Martindale forgot to advise a suspect of his constitutional rights when making an arrest. This led to the dismissal of one case. The officer is not always observant on patrol -- he sometimes missis things the best officers notice. Also, the officer sometimes issues traffic citations in an unjustified and uneven manner. Otherwise, he appears to be dependable and have reasonable job knowledge.

Note. Patrol Officers come under reprimand when their service has been flawed -- demonstrating unprofessional conduct, breaking departmental regulations or acting in a manner at risk to the public. Please give all your decisions serious consideration.

As a supervisor, would you

1) Issue the reprimand_____

2) Withold the reprimand_____

How confident are you that you made the best decision regarding the reprimand decision?

Not at all Confident___:___:___:___:___Very Confident
1 2 3 4 5

Reprimand Evaluation Sheet

In your opinion, if given the same information as you and other subjects have been given, what percent of undergraduates would make the same decision you made?

_____ Percent

In the next two questions, make sure that the sum of your responses total 100%

What percent of your fellow students would feel confident about the decision they would make?

_____ Percent Confident

What percent of your fellow students would NOT feel confident about their decision?

_____ Percent Not at all Confident

Think about each of the persons listed below. If they were in the supervisory position, indicate how you think they would have decided regarding the officer under review. (Check one for each person)

	Issue Reprimand	Withhold Reprimand
1) Your best same sexed friend	_____	_____
2) Your favorite teacher of all time	_____	_____
3) The person you dislike the most	_____	_____
4) An officer not under review	_____	_____
5) Your favorite family member	_____	_____

Reprimand - continued

Do you think the person with whom you will be meeting made the same or a different decision regarding the officer reprimand?
(Circle one)

A) Made the Same Decision B) Made a different decision

In your opinion, how Confident is the person you will be meeting about the decision they have made regarding the reprimand evaluation?

Not at all confident___:___:___:___:___Confident
1 2 3 4 5

Do you have a guess whether the person you will meet is either male or female?

A) Male
B) Female
C) Equal chance of being male or Female

If you did have a guess about the sex of the person you will be meeting to discuss the reprimand evaluation, did you think about whether the person is male or female when you made your decision regarding what percent or other undergraduates made the same decision as you ?

YES___ NO____

Merit Raise Evaluation Sheet

In your opinion, if given the same information as you and other subjects have been given, what percent of undergraduates would make the same decision you made?

_____ Percent

In the next two questions, make sure that the sum of your responses total 100%

What percent of your fellow students would feel confident about the decision they would make?

_____ Percent Confident

What percent of your fellow students would NOT feel confident about their decision?

_____ Percent Not at all Confident

Think about each of the persons listed below. If they were in the supervisory position, indicate how you think they would have decided regarding the officer under review. (Check one for each person)

	Award Raise	Withold Raise
1) Your best same sexed friend	_____	_____
2) Your favorite teacher of all time	_____	_____
3) The person you dislike the most	_____	_____
4) An officer not under review	_____	_____
5) Your favorite family member	_____	_____

Merit Raise - continued

Do you think the person with whom you will be meeting made the same or a different decision regarding the merit pay increase?

(Circle one)

A) Made the Same Decision

B) Made a different decision

In your opinion, how Confident is the person you will be meeting about the decision they have made regarding the merit pay evaluation?

Not at all confident___:___:___:___:___Confident
1 2 3 4 5

Do you have a guess whether the person you will meet is either male or female?

A) Male
B) Female
C) Equal chance of being male or Female

If you did have a guess about the sex of the person you will be meeting to discuss the merit raise evaluation, did you think about whether the person is male or female when you made your decision regarding what percent or other undergraduates made the same decision as you ?

YES___ NO___

Introductory Psychology Student Questionnaire

Many students in introductory psychology classes who participate in research for extra credit are asked to meet with other students to discuss issues or solve group problems. In the questions below, please indicate how you feel about meeting others in the present experiment.

Friendly ___ : ___ : ___ : ___ : ___ Unfriendly
1 2 3 4 5

Very relaxed ___ : ___ : ___ : ___ : ___ Not at all relaxed
1 2 3 4 5

Very comfortable ___ : ___ : ___ : ___ : ___ Uncomfortable
1 2 3 4 5

Curious ___ : ___ : ___ : ___ : ___ Uninterested
1 2 3 4 5

Very anxious ___ : ___ : ___ : ___ : ___ Not at all anxious
1 2 3 4 5

Talkative ___ : ___ : ___ : ___ : ___ Not talkative
1 2 3 4 5

Bored ___ : ___ : ___ : ___ : ___ Excited
1 2 3 4 5

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FOOTNOTES

[1] Opinion projection is defined in this paper as the general tendency for people to overestimate the extent to which others hold the same opinion as themselves. This applys equally to the projection of one's opinion onto a specific other (typically called assumed belief similarity) as well as projection onto others in general (typically called false consensus).