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AN INFORMATION-WEIGHTING ANALYSIS

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CONFORMITY AND HELPING BEHAVIOR:

AN INFORMATION-WEIGHTING ANALYSIS

By

Rita Karen O'Quin

A DISSERTATION

Submitted to
Michigan State University
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ABSTRACT

CONFORMITY AND HELPING BEHAVIOR:
AN INFORMATION-WEIGHTING ANALYSIS

By

Rita Karen O'Quin

An information weighting model was used to examine the similarities between conformity and helping behavior. Both the awareness stage and the decision stage of conformity and helping were seen to be influenced by 1) factors external to the subject, such as ambiguity of the situation and the behavior of other people, and 2) internal factors, such as past experience, mood, and personality variables.

This study also reported the development of the Perceived Sources of Influence scale (PSI). Four subscales of the PSI were presented, which seemed to measure social self awareness, the tendency to accept normative influence, independence of other people, and social confidence.

The present study employed a repeated-measures design. Subjects participated in a conformity session in which their task, over a series of trials, was to estimate the number of dots which flashed on a screen. They participated with a male confederate who exerted conformity influence by consistently overestimating the number of dots. Ambiguity of the situation and the quality of the information provided by the confederate were manipulated. Subjects also participated in a helping experiment. A female experimenter created a small emergency. Once again, ambiguity of the situation and the information provided by a confederate were manipulated.

As predicted, main effects were found in both the helping and the conformity sessions for ambiguity of the situation. Subjects helped less and conformed more when the situation was ambiguous than when it was not. Subjects were strongly influenced by the interpretation of the situation provided by the confederate in the helping session. In the conformity session, the manipulation of information quality did not affect conformity behavior, although subjects reported they were less influenced by a hesitant confederate than by a confident one. It appeared that the key variable in conformity was not the perception of whether or not one was influenced, but the perception of the relative worth of one's own information on a given task. The results for the PSI showed that the scale was sensitive to the behavior of the confederate in the conformity session, but not in the helping session.

In conclusion, the results offered tentative support for the information-weighting model. Equating the strength of the informational manipulations appears to be crucial for future research.

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INTRODUCTION

The present paper offers a theoretical integration of the helping behavior and conformity literatures. These two areas of research in social psychology have not been clearly differentiated in recent work.[1] The same dependent measure is often called "compliance" in one study, and "helping" in another, apparently depending upon the perspective of the experimenter.[2] For example, Schopler and Bateson (1965), in a widely cited helping study, referred to their dependent measure as "yielding" and the "forced compliance" paradigm often proceeds by asking the subject to help out the experimenter (e.g., Carlsmith, Collins & Helmreich, 1959). Cialdini and Ascani (1976) used a request to donate blood as an example of compliance, whereas Condie, Warner and Gillman (1976) used the same request and called it helping. The original foot-in-the-door compliance study (Freedman & Fraser, 1966) did not mention helping in the request, but subsequent foot-in-the-door studies (e.g., Crano & Sivacek, Note 1; Seligman, Bush & Kirsch, 1976) have done so. Some studies with "compliance" in the title ask subjects for help (e.g., Steele, 1975) while others do not (e.g., Cialdini, Cacioppo, Bassett & Miller, 1978; Kleinke, 1977). This definitional ambiguity led to the present analysis. My purpose was to examine the conceptual relationship between helping behavior and conformity.

The present paper uses a decision-making or information-weighting model to clarify a subject's response in both helping and conformity situations. Such analyses are not new to social psychology. For example, a number of studies have emphasized the way a person processes

the information contained in persuasive messages (e.g., Calder, Insko & Yandell, 1974; Cacioppo & Petty, 1979), and several information processing or information-weighting analyses of attribution have appeared (e.g., Brewer, 1977; Monson & Snyder, 1977). In the helping literature, Latane' and Darley (1970), Piliavin and Piliavin (1972), Pomazal and Jaccard (1976), Bar-Tal (1976) and Lynch and Cohen (1978) have used similar approaches. Such writers as Crano (1970), Crawford and Haaland (1972), Ference (1971) and Lewis, Langan and Hollander (1972) have used information processing or information weighting analyses in conformity.

In the present analysis, the decision to conform or to help is seen as the end-product of rapid decision-making steps (see Table 1) on the part of an individual, utilizing whatever information sources are available. Morgan (1978) points out that the intervention response is that of an individual and not, in any usual sense of the word, a group response. I would argue that the same is true of the conformity response. Table 1 presents an abbreviated summary of some of the sources of information an individual may use in the decision process.

The present model relies heavily upon a distinction between "internal" sources of information, representing factors within the responder, and "external" sources of information, representing factors within the environment of the responder. Differences in sensitivity to internal versus external sources of information have been reported from many areas of social psychological inquiry. For instance, Schachter and his associates (e.g., Rodin, 1973; Schachter, 1971; Schachter & Rodin, 1974) have suggested that the obese are more sensitive to external, rather

Table 1

Outline of the Decision-Making Model

STAGE 1: Awareness

- A. External factors
  - 1. Ambiguity of situation
  - 2. Behavior of others
- B. Internal factors
  - 1. Mood
  - 2. Individual differences affecting perception

STAGE 2: Decision

- A. Interpretation of situation
  - 1. Internal information
    - a. Past experience; enduring personality traits
      - 1. Normative expectations (perceived expectations of others)
      - 2. Individual differences affecting interpretation of the situation
    - b. "Temporary" internal information
      - 1. Physiological arousal
      - 2. Mood
  - 2. External information
    - a. Others' behavior
      - 1. Direct request or situational definition
      - 2. Indirect influence (e.g., nonresponsiveness)
      - 3. Verbal reinforcement
    - b. Situational factors
      - 1. Task difficulty
      - 2. Ambiguity
      - 3. Reward contingencies (e.g., success/failure)
- B. Reward-cost analysis

than internal, sources of information than are normal-weight persons. Snyder's (1974) work with the self-monitoring scale and Witkin's work with psychological differentiation (e.g., Witkin, Goodenough & Oltman, 1979) also imply that differential sensitivity to internal and external sources of information may be an important variable affecting a person's response in many different situations. The usefulness of the internal-external distinction in organizing the helping and conformity literatures is important to the present model and will be elaborated further below.

Awareness

In both the helping and the conformity situations, the first stage in information-processing is awareness: noticing that something is amiss. In the conformity situation, this awareness takes the form of perceiving that there is a discrepancy (Kelman, 1974) between what one sees or believes and what another person or persons seem to see or believe, that is, there is a discrepancy between physical and social reality.[3] In the helping situation, awareness takes the form of realizing that someone is in need of assistance (Bar-Tal, 1976). The helping situation is also one of noticing that something is amiss; a person in need of help indicates that all is not right with the world.

The extent of awareness may vary greatly from situation to situation. For instance, in the Sherif (1935) autokinetic study, awareness of discrepancy was very slight when the estimates of two naive subjects converged, because physical and social reality were, in essence, gradually defined as being the same. In the Asch (1951) situation, however, awareness of a discrepancy between physical and social reality was

extremely salient and, as Asch reported, this awareness of discrepancy caused a considerable amount of distress among his subjects. However, Asch reported that as the task became more ambiguous, the distress and conflict his subjects experienced decreased markedly. That is, "the majority achieves its most pronounced effect when it acts most painlessly" (Asch, 1951, p. 189). In helping situations, enough prominence to attract notice is a necessary (Bar-Tal, 1976; Schwartz, 1977) condition for helping to occur, but it is not a sufficient condition.

External variables. The latter point, that the extent of awareness may vary greatly, highlights a key external variable affecting the awareness stage: ambiguity of the situation. In helping, the greater the ambiguity of the situation, the less likely it is to be defined as one in which helping is the appropriate response. The greater the ambiguity, in general, the less helping (Staub, 1972; Schwartz, 1976). In conformity, greater ambiguity makes it less likely that the discrepancy between physical and social reality will become glaringly apparent. Thus, the greater the ambiguity, the greater, and less painful, the conformity (Allen, 1965).

A second external variable which may affect awareness is the behavior of other people in the situation. In conformity situations, other people often report judgments of physical reality which differ from our own. Thus, the behavior of others may be a powerful determinant of awareness. In helping also, the behavior of others, especially that of the victim, may be a strong determinant of awareness. For example, a direct request clearly defines the situation as one in which helping is appropriate.

Internal variables. An internal variable affecting helping behavior, and perhaps conformity, is the mood of the respondent. Isen and Levin (1972) found that good mood facilitated helping behavior. Levin and Isen (1975) suggested that good mood played a role in the decision to help or not to help by affecting a person's perception or weighting of the costs and rewards associated with helping or not helping. Isen, Shalker, Clark and Karp (1978) found that good mood improved subjects' evaluation of the performance and service records of products they owned. These authors also reported that good mood enhanced subjects' recall of positive information in memory.

Weyant (1978) found that while positive mood consistently facilitated helping, the influence of negative mood depended on the costs and rewards for helping. Negative mood facilitated helping when rewards for helping were high and costs for helping were low, and showed a tendency to decrease helping when rewards were low and costs were high. Negative mood thus seemed to make subjects more aware of certain combinations of rewards and costs in the helping situation. Isen and Simmonds (1978) found that good mood subjects were more likely to expose themselves to positive information than negative mood subjects. Batson, Coke, Chard, Smith and Taliaferro (1979) postulated that enhanced mood leads to a relatively general activation of behavior. Consistent with this hypothesis, they found that elevating mood, in addition to increasing helping, also enhanced information acquisition.

These studies suggest that mood influences behavior by affecting information processing. That is, mood makes a person more or less aware of certain types of information in the environment. Good mood seems to

make positive information more accessible, while negative mood seems to reduce responsiveness to external variables in general and to enhance the perceived discrepancy between rewards and costs. McMillen, Sanders and Solomon (1977) reported that subjects who received negative feedback (bad mood) were less responsive to noise than were neutral or positive feedback subjects. In addition, negative mood subjects were also less responsive to a helping situation unless a noise occurred to attract attention to the situation.

A second set of internal variables is the individual difference variables which affect perception. Many personality variables have been suggested to affect how a person perceives both the environment and persons within the environment (see Forgus & Melamed (1976) for a general review). While no comprehensive review exists, several authors (e.g., Strickland, 1977; Snyder, 1974) have pointed out how "their" personality variables are related to perception. The present analysis suggests that these variables affect the awareness stage by acting as "filters" in screening perceptual information. If a person does not notice an emergency, help cannot occur. Similarly, if a person is unaware of the behavior of another, conformity cannot occur.

Interpretation of the situation

Interpretation of the situation is the first step in the decision stage. Once a person becomes aware of some discrepancy in the situation, a rapid response decision must be made. In making this decision, a person has several sources of information available. Crano (1974) suggests that there are three such sources of information: 1) past experience in similar situations. 2) information directly perceived,

which is specific to a particular setting, and 3) information and interpretations made available by agents external to the perceiver.

The present theory adapts these three sources in the following manner. First, the internal-external distinction is invoked to encompass past experience within the internal rubric, since it represents information available from memory. Second, "past experience" is expanded in concept to include characteristic modes of responding, such as personal norms (Schwartz, 1973; 1977) and other personality variables (reviewed by Krebs (1970) for helping and by Saiyadain (1974) for conformity). Second, information directly perceived is expanded to include all information available internally (such as mood and physiological arousal). The third category is not changed in concept.

In summary, interpretation of the situation is seen to be made on the basis of two major sources of information: 1) internal information, including past experience and enduring personality characteristics, and 2) information made available by sources external to the perceiver.

Internal information

Past experience. The role of past experience will be reviewed in the present paper largely in the guise of normative prescriptions for behavior. The effect of various types of norms upon helping behavior has been reviewed elsewhere (e.g., Berkowitz, 1972). Schwartz (e.g., 1973; 1977) has proposed a personality variable called ascription of responsibility (AR), which is conceptualized as an individual's "personal norms." Several studies (e.g., Schwartz, 1974; Schwartz & Ben-David, 1976) have found evidence that personal norms affect helping behavior.

In the present analysis, personal norms are seen as one of the internal variables which influence one's sensitivity to various sources of information. For instance, strong personal norms were shown to negate a person's response to legitimacy of need in a helping situation (Schwartz & Fleischman, 1978); people with strong personal norms--either positive or negative--were influenced by their internal norms, but not by an external legitimacy of need manipulation. Thus, personal norms seemed to influence a person's sensitivity to various sources of information in the environment.

A number of other personality variables have been investigated with regard to helping behavior (see Krebs, 1970). However, the thesis of the present analysis is that personality variables work by influencing one's sensitivity to, and weighting of, various sources of information. Direct support for this thesis comes from the work of Wilson (1976), who found that safety-oriented persons depended upon other people (models) in a helping situation to provide informational cues as to the appropriate response, whereas esteem-oriented persons were relatively unaffected by the behavior of the model. Support for this view also comes from Witkin, et. al. (1979), who proposed that field dependent people may be more attentive to social sources of information than field independent persons. In addition, indirect support for this thesis is provided by the work of Schachter (1971) and Rodin (1971; 1973), in which obesity is seen to influence the relative sensitivity to external sources of information. For example, Costanzo and Woody (1979) found that obese children rated a boring film as more attractive in the presence of available attractive food than did normal children. Thus,

obesity affected children's responsiveness toward different types of external information.

The present model suggests that personality variables operate in the same way in conformity situations. A number of personality variables have been investigated with regard to their influence upon conformity. For instance, Linton (1955) studied several indices of conformity as a function of field dependence. She found that subjects who were highly influenced by external stimuli (field dependent) in perceptual tasks were especially likely to conform in the autokinetic paradigm and in attitude change. Witkin, et. al. (1979) suggest that field dependent persons may depend upon other people as sources of information, thus conforming more. Trickett (1971) analyzed need for achievement in terms of subjects' reponsiveness to different types of information at different levels of task difficulty. Ward and Wilson (in press) found that safety oriented people acquiesced to social pressure in group situations; in alone conditions, esteem and safety subjects were not different. These findings are consistent with the view that safety and esteem subjects differ in their dependence upon other people as sources of information. Snyder (1974; 1979) suggested that high self-monitors were more sensitive and more responsive to the situations in which they found themselves than low self-monitors. Sistrunk (1973) reported the development of a scale which also contributes to the present analysis: the Survey of Normative and Informational Predispositions (SNIP). Sistrunk reported public/private differences in the use of information from other people depending upon a person's tendency to respond to influence from other people either in terms of its potential value as a source of

information or in terms of its prescriptions of socially acceptable, normative behavior.

All these authors seem to be converging upon a general personality tendency for people to be differentially sensitive to internal as opposed to external sources of information. My purpose in the present paper is to report the development of a scale which attempts to measure this tendency to be influenced by internal versus external sources of information. The development of this scale will be described below.

Physiological arousal. The potential helper or conformer is in a state of confusion, looking for information to resolve the dilemma of whether to intervene or to conform. I propose that physiological arousal is one more informational cue that subjects may utilize in their decision process. In the absence of other clear cues in the situation, subjects use their own arousal as an information source in deciding how to interpret the situation.

In the conformity literature, Back, Bogdonoff, Shaw and Klein (1963) examined the relationship of physiological arousal and conformity. In helping, Piliavin, Rodin and Piliavin (1969) emphasized the role of arousal in bystander intervention. Clark and Word (1974) and Gaertner and Dovidio (1977) showed that subjects found unambiguous emergencies to be more arousing and upsetting than ambiguous emergencies; subjects also helped more in unambiguous conditions. The latter study found evidence for a causal relationship between arousal and helping.

Gaertner and Dovidio (1977) also found an interesting interaction: arousal was only related to helping in ambiguous emergency situations. In an unambiguous situation, the situation itself seemed to provide

sufficient information to decide whether to respond, and arousal made no difference in the latency of help. Only in ambiguous situations did subjects use their own arousal as an indication of whether or not to intervene.

Of course, subjects' arousal is a function of many aspects of the situation. It may be increased by the severity of the emergency (Piliavin, & Piliavin, 1972), or the ambiguity of the situation (Clark & Word, 1974). Other factors in the situation may affect arousal as well. For instance, Back, et. al. (1963) found that the most definite increases in physiological arousal occurred during the instruction period rather than the conformity experiment itself, suggesting that what mattered to the subjects were the instructions, that is, the experimenter's interpretation of the situation. The importance of the experimenter as a generally overlooked influence source is also discussed by Schulman (1967).

Mood. The effects of mood upon awareness and perception of the situation are discussed above. Mood's effects upon interpretation of the situation are assumed to operate in a similar fashion. As Levin and Isen (1975) point out, a person in a good mood tends to estimate situations more positively and to behave accordingly. They indicate that good mood affects a person's weighting of the costs and rewards associated with a particular action. Isen, et. al. (1978) suggest that positive thoughts, memories and associations may be more accessible to a person in a good mood, and the situation may thus be interpreted more positively. For example, the advantages of certain courses of action may be more readily accessible to cognition than the disadvantages, and help may occur more readily. Isen and Simmonds (1978) suggest that

ambiguity of the situation may be an important factor. If the situation is more ambiguous, the "positive glow" which has been observed to affect subjects' estimates of stimuli and events around them should have a greater opportunity to affect their interpretation of the situation.

External information

Others' behavior. The behavior of other people is an important factor in interpretation of the situation as well as in awareness. The extensive modelling literature in helping behavior, beginning with the studies of Bryan and Test (1967) demonstrate that other people and their action (or inaction) serve as powerful information sources. A model provides at least two types of information (Staub, 1974). First, information is provided about the "proper" or expected course of action, thus conveying information about the normative expectations of others.[4] Second, a model provides information about potential negative or positive outcomes as a result of helping (Bryan & Test, 1967; Walster & Piliavin, 1972).

The bystander intervention literature contains a number of studies concerned with the effects of group size on helping behavior, with the most common finding that the presence of others inhibits intervention (e.g., Latane' & Darley, 1970). However, this is by no means a universal finding (e.g., Piliavin & Piliavin, 1972). In the present analysis, the presence of nonreactive others is seen to provide information that inaction may be the "appropriate" course in a given situation. In addition, the presence of other people may create a greater concern with self-presentation, or more fear of negative feedback from others, thus

potentially increasing the costs of intervention. Morgan (1978) presented a reward-cost analysis of the group size effect which will be discussed further below.

Others may also provide verbal information or verbal interpretations of the situation, but few studies have examined this function of other people. Staub (1972) used five different types of verbal definition of an emergency situation, finding that the verbal behavior of the confederate greatly affected the frequency of active help, in both positive and negative directions. Bickman and Rosenbaum (1977) found that the verbal definition of the situation proposed by a fellow bystander had a strong effect on the rate of crime reporting. Bickman (1979) discovered that the verbal behavior of a confederate affected both a subject's definition of a shoplifting situation and actual intervention. Although the confederate's interpretation affected the subject's certainty that the event was a shoplifting, merely interpreting the event as a crime, without further encouragement to intervene, was not sufficiently powerful to affect intervention. However, Bickman suggested that simply changing a bystander's interpretation of an event might be important when the crime was ambiguous.

Situational factors. Situational factors which are likely to affect a person's information-weighting are those, such as task difficulty and the reward contingencies of the situation, which bear upon perceived competence. It is a common finding in the conformity literature that task difficulty increases conformity (Allen, 1965). It is possible to increase or decrease conformity by rewarding or punishing conforming behavior, respectively (e.g., Beach & Lloyd, 1965; Endler, 1966). In

the present analysis, the proposed mechanism by which these effects are accomplished is that of changing one's perception of oneself as a valid source of information. Crano (1970) showed that the perceived expertise of one's partner changed the relative weighting of perceptual versus social information; an expert partner's judgments were given more weight than those of an inexpert partner. Thus, situational manipulations which change one's perceived expertise (e.g., success/failure or reinforcement/ punishment) relative to that of another person are likely to increase one's own perceived value as a source of information. Perceived competence has been shown to increase helping behavior, as well as decreasing conformity (e.g., Kazdin & Bryan, 1971; Midlarsky, 1968). However, the mediators of this relationship seem to be more circuitous, impinging upon mood (McMillen, et.al., 1977), and perhaps upon heightened sensitivity to the needs of others (Kazdin & Bryan, 1971).

Another important external variable is ambiguity. Ball-Rokeach's (1973) analysis of situational ambiguity as an informational problem is consistent with the present analysis. Ambiguity, in addition to producing strong main effects upon both helping (e.g., Clark & Word, 1974) and conformity (see Allen, 1965), also seems to be involved in several interactions. Morgan (1978), for instance, suggests that ambiguity affects one's judgment of what the costs and benefits of intervention would be. Isen and Simmonds (1978) proposed that ambiguity might interact with mood: good mood should have greater effects in ambiguous situations. Gaertner & Dovidio (1977) found that subjects were only responsive to their own arousal in ambiguous helping situations. Solomon,

Solomon & Stone (1978) also found that the group size effect was stronger and there was less help in an ambiguous (heard only) emergency than in an unambiguous one (both seen and heard). In addition, perceived competence is no doubt correlated with stimulus ambiguity in conformity (Allen, 1965). Ambiguity may also function in the conformity situation by reducing the costs for conforming; it is less costly, both in terms of self-deprecation and possible deprecation by others, to conform when the situation is ambiguous (e.g., Asch, 1951). Thus, when the situation is ambiguous, alternate sources of information, such as internal cues and other people's actions, become more important in the decision to intervene or to conform.

Reward-cost analysis

A reward-cost analysis of helping behavior has gained a great deal of support in the literature, since it was first outlined by Piliavin, Rodin & Piliavin (1969). For instance, Pomazal and Jaccard (1976) incorporated perceived rewards and costs in their informational model of helping. Walster and Piliavin (1972) discussed costs and benefits of helping in reference to equity theory. Morgan (1978) presented a model to explain the inconsistent effects of group size upon bystander intervention which incorporated rewards and costs for both the individual and the group. Morgan found that when the individual cost of intervening and the benefits to noninterveners were increased, response latency increased with group size; the critical factor in producing the group size effect was the allocation of costs and benefits for intervening.

In the same vein, Condie, Warner & Gillman (1976) found, contrary to previous research on blood donation, virtually no association between

volunteering and altruism. Donors were more responsive to social pressure and incentives and less impeded by the costs of giving than were nondonors.

Reward-cost analyses have also been discussed in the conformity literature. Crawford and Haaland (1972) viewed conformity as an instrumental response, maintained by its consequences. They saw conformity as instrumental in obtaining rewards from others (Jones, 1964), to avoiding sanctions (e.g., Milgram, 1963) or to the verification of beliefs (Festinger, 1950). Sistrunk (1973) also indicated that subjects behaved in a conforming manner only when that behavior was instrumental in attaining relevant goals. Similarly, Lewis, Langan and Hollander (1972) viewed conformity as a means by which to achieve specifiable goals in interaction, to reward others and to gain future rewards from others. The costs of conformity were seen to involve giving up personal choice, and the authors noted that the costs of conformity were lower in ambiguous situations.

A number of other factors have been suggested to affect subjects' reward-cost calculations. For instance, Levin and Isen (1975) suggested that good mood would increase the likelihood that a situation would be interpreted positively. Public commitment to an attitude may also be seen as a means of reducing reward-cost calculations (Allen, 1965), and prior commitment to another person may decrease the latency of helping (Moriarty, 1975), presumably by reducing the amount of information-processing which goes on in deciding whether to intervene. Attraction toward the group may also affect reward-cost calculations, since an attractive group is likely to be felt as a source of punishment for non-

compliance (Allen, 1965). Perceived competence may also affect the calculation of rewards and costs: success or failure may alter the attractiveness or the expertise of the influencing agent(s), and may also affect mood (McMillen, et. al., 1977).

Purpose and hypotheses

As outlined above, the internal-external distinction is important to the present analysis. The thesis of this presentation is that individuals differ in their sensitivity to internal as opposed to external sources of information. The present paper reports the development of a scale to measure this individual difference, and a study to examine the similarities in the weighting of information in helping and conformity situations. Two types of external information were chosen: the behavior of another person, and the ambiguity of the situation itself. The present study also examined the effects of internal information by including several personality variables.

Since the information provided by other people was seen to be important, main effects were predicted in both helping and conformity situations for certainty of confederate. A hesitant confederate was predicted to be less influential in the conformity situation than a confident confederate. In the helping situation, the behavior of a confederate who was certain that helping was appropriate was expected to increase helping behavior, and the behavior of a confederate who was certain that helping was inappropriate was expected to decrease helping, relative to a confederate who was uncertain as to the correct course of action. Main effects were predicted for ambiguity of situation. Subjects were expected to conform more and help less in ambiguous situa-

tions. An interaction between ambiguity and certainty of confederate was also predicted: the certain confederate should have the greatest differential impact in ambiguous conditions. An uncertain confederate was expected to influence subjects, but to a lesser extent in unambiguous situations. Finally, interactions between personality and ambiguity were predicted: personality was expected to have the greatest impact in ambiguous situations. When fewer cues as to the "correct" mode of behavior are available from external sources, internal determinants of behavior should become more important.

SCALE DEVELOPMENT

Item generation

Items were generated in a two-step sequence. First, a pool of 21 potential items was administered to 22 undergraduates enrolled in an introductory social psychology class. On the basis of a factor analysis of this preliminary item pool, new items were written in general accordance with both theoretical and practical concerns. A total of 44 items were so generated.

Second, these 44 items were administered to 52 female and 17 male undergraduates at Michigan State University. These items were subjected to factor and cluster analyses. Items were deleted which 1) elicited little variability of response. 2) loaded highly on more than one factor. 3) did not contribute to the reliability of their own subscales. A total of 31 items were retained from this pilot questionnaire, and four additional items were added to lengthen the subscales. Thus, a total of 35 items in the Perceived Sources of Influence scale were evaluated in the next stage of scale construction.

Pilot study

Subjects. Subjects were 114 male and 273 female undergraduates at Michigan State University who participated to fulfill a portion of course requirements in introductory psychology. Eighteen subjects who did not record their sex were also included.

Procedure. Subjects were asked to read three stories identical to those used by Ross, Green and House (1977, Experiment 1) to assess the false consensus effect. These data are not the focus of the present

paper and will not be presented here. Immediately before or immediately after evaluating the false consensus stories, subjects filled out the 35-item Perceived Sources of Influence scale (PSI). Subjects were then administered Snyder's (1974) self-monitoring scale, the Survey of Normative and Informational Predispositions (SNIP; Sistrunk, 1973), Schwartz's (1973) ascription of responsibility (AR) scale, Levenson's (1974) version of the locus of control scale (IE), Rosenberg's (1965) self-esteem scale and the social desirability scale (SD; Crowne & Marlowe, 1960), in that order.

Results and Discussion. The 35 items of the PSI were subjected to factor and cluster analyses; items were deleted on the basis of the same criteria used in the pilot study. The factor analysis of the final 26 items is presented in Table 2, and the items themselves in Appendix A. Three final factors were obtained. However, cluster analysis, using the method of inspection of the ordered correlation matrix (Nunnally, 1978) and Hunter and Gerbing's (Note 2) criteria for unidimensionality, suggested that the first factor should be split into two subscales. The reliabilities of the subscales were adequate (see Table 3).

The scale intercorrelations are presented in Table 3, with the reliabilities in the diagonal. With the exception of the internal subscale of Levenson's IE variable, all the scales achieved acceptable reliabilities.

Table 3 reveals that the subscales of the PSI had low to moderate correlations with the other scales. Reported independence and confidence were correlated approximately .35 with social desirability, indicating that subjects' reports of their independence from the

Table 2

Items and Factor Loadings for the

Perceived Sources of Influence Scale

Item Labels	Factor 1	Factor 2	Factor 3
Social Self Awareness			
Aware own behavior	57	14	-12
Aware own behavior	66	4	- 5
Watch others carefully	42	-2	-18
Understand what's going on	47	0	1
Understand social situations	44	2	6
Understand how people behave	30	-3	- 8
Normative influence			
Obey rules of society	39	-18	20
Obey rules whenever possible	50	4	12
Do proper thing	65	-5	1
Social rules are necessary	40	-17	27
Worry about dressing appropriately	43	-12	-8
Independence of Others			
Don't care what people think	-12	66	3
Almost never change behavior	8	63	14
Same person no matter who I'm with	-6	60	10
Seldom use others' opinions	6	60	28
People have little effect on action	0	59	22
Never compromise my opinions	0	58	9
Same person regardless of situation	-30	58	12
Seldom use others' behavior	6	55	23
* Concerned about people's opinions	-5	54	-7
* People should approve of me	-36	52	-1

Table 2

(continued)

Social Confidence			
* Avoid standing out in a crowd	-20	7	56
* Easily embarrassed	-26	6	54
Confident of my own judgments	17	33	54
* Clumsy and awkward socially	-4	15	53
* Little faith in own judgments	3	18	46
Depend on my own judgments	19	26	29

Note. Starred items were reflected.

Table 3

Scale Intercorrelations

		1	2	3	4	5	6	7	8	9	10	11	12	13
SNIP (Informational)*	1	85												
SNIP (Normative)*	2	47	87											
IE (Internal)	3	38	17	56										
IE (Chance)	4	-10	18	-29	70									
IE (Powerful Others)	5	-07	29	-11	55	73								
Self Monitoring	6	-07	-30	01	-12	-17	73							
Self Esteem	7	-25	20	-33	33	27	-07	85						
Schwartz AR	8	-23	08	-13	19	27	-20	15	69					
Social Desirability	9	-14	14	-08	20	24	-29	29	40	81				
Independence*	10	09	-48	13	-14	-24	49	-33	-24	-39	84			
Confidence*	11	09	-29	13	-18	-24	-16	-49	-12	-32	38	69		
Social Self Awareness*	12	41	39	14	07	12	-14	02	00	09	08	-07	68	
Normative*	13	43	56	14	01	11	-11	07	-07	-06	-15	-01	41	68

Note. Starred scales are scored such that a high score represents the negative.

$r > .10$ is significant at the .05 level. $r > .13$ is significant at the .01 level.

judgments of others were somewhat contaminated by positive self presentation. The two external subscales of the PSI were not related to social desirability, however. As expected, independence and confidence were also related to self-esteem.

It was interesting to note that independence was correlated with the self-monitoring scale, but the other three PSI subscales showed little relationship to self-monitoring. The self-monitoring scale was characterized by Snyder (1974) as changeability over which one has deliberate control. It is reasonable to expect such a relationship with reported independence of the judgments of others; however, one might also have expected a correlation with the social awareness subscale of the PSI.

The final relationships of interest were the correlations of the PSI and the SNIP. The informational subscale of the SNIP was positively related to both external subscales of the PSI, and was uncorrelated with the internal subscales. However, the normative subscale of the SNIP was related to both the internal (negatively) and external (positively) subscales of the PSI. Since the purpose of the SNIP was also to measure perceived influence, these relationships were expected. However, the size of the correlations indicated that the PSI seemed to be measuring somewhat different underlying variables. Within the PSI, the subscales showed little intercorrelation, except with their partner scales.

METHOD

Subjects and undergraduate assistants

Subjects were 113 male undergraduate students at Michigan State University.[5] Forty-three subjects received extra credit points in introductory psychology for their participation. The remaining 70 subjects were paid $3.00 each.

Twelve male and 11 female undergraduate students served as experimenters and confederates in the present study. The experimenter in the helping session was always female and confederates in both helping and conformity sessions were always male. The role of experimenter in the conformity session was not restricted by sex.[6] Within these limitations, assistants rotated roles and performed all tasks about equally.

Materials

The experimental room for the conformity session was approximately 2.5 by 4.5 meters in size and contained two chair desks separated by a movable partition. The experimenter operated a Kodak Carousel slide projector with built-in timer from the back of the room. The slides were the same as those used by Crano (1970). Each block of ten slides had a mean of 40 dots, and the standard deviations were equal from block to block.

The experimental room for the helping session was a large library room in considerable disarray, divided into two "room" sections by means of several bookshelves, a blackboard and chairs. Large numbers of cardboard boxes filled with books and papers occupied the corners of both sections of the library, and the books on the shelves were in disorder.

Overview of the experiment

The present study employed a repeated-measures design. Subjects participated in a conformity session in which their task, over a series of trials, was to estimate the number of dots which flashed on a screen. They participated with a male confederate who exerted conformity influence by consistently overestimating the number of dots. Ambiguity and quality of information were manipulated by two between-subjects variables: the length of exposure of the slides (either 5 or 8 seconds) and the confidence with which the confederate expressed his overestimates. The conformity paradigm used in the present study was developed by Crano (1970), and its strength is that it permits the assessment of both types of conformity: compliance and private acceptance. Estimates were said aloud during the influence (compliance) trials. The influence period was followed by trials in which the participants were assured that their responses would be anonymous. In the absence of surveillance, responses should reflect inner conviction (private acceptance) rather than mere compliance.

Subjects also participated in a helping experiment in a library setting. While subject and confederate filled out questionnaire booklets, a female experimenter dropped a box noisily upon a metal filing cabinet and fell to the floor. Once again, ambiguity and information were manipulated by two between-subjects variables: whether or not the experimenter groaned as she fell to the floor, and the certainty with which the confederate expressed his opinion of the correct mode of action after the crash. The order of participation in the helping and conformity sessions was counterbalanced.

Design

Between-subjects variables were factorialized for convenience in counterbalancing. The overall design of the study was a 2 (confident/hesitant confederate in conformity session) by 2 (5 second/8 second exposure of slides in conformity session) by 2 (groan/no groan in helping session) by 3 (confederate is certain positive/uncertain/certain negative that helping is appropriate) by 2 (order of participation) factorial. Since the only purpose for this factorialiation was for the purpose of counterbalancing, this design reduced to simpler 2 X 2 (conformity session) and 2 X 3 (helping session) factorials.

Procedure

Conformity session. Confederate and subject waited in chairs in the hall until escorted to the experimental room, where they signed research consent forms. The experimenter provided the subject with a 40-space data sheet with the three-line heading: "Michigan State University-Department of Psychology-Visual Perceptual Acuity Experiment." The confederate's sheet contained his script and assignment of condition. The confederate was blind to his condition until this time, and the experimenter was blind to the condition until the estimates began. Instructions (see Appendix B) were read to the participants, with checks for comprehension. Their task was to count the number of dots which flashed on the screen. A practice trial was conducted, on which the confederate stated his estimate first and, true to "character," overestimated.

The 40 influence trials then proceeded. Each of the confederate's estimates was 30% higher than the actual number of dots which appeared

in the slide. Both participants stated their estimates aloud on each trial. The confederate said his estimate first in the first block of ten trials, the subject stated his estimate first in the second block of ten trials, and they alternated in this manner through the 40 trials.

Two independent manipulations were made throughout the influence period. The first was to vary the ambiguity of the conformity situation by varying the length of exposure of each slide, either 5 seconds or 8 seconds. The second manipulation varied the quality of information provided by the confederate. In the confident condition, the confederate paused briefly, as if counting carefully, then calmly and confidently stated his estimate. In the hesitant condition, on a programmed 50% of the trials, the confederate began to estimate 10 points higher than his already-inflated estimate, then settled back to his script estimate. For example, he might say, "Sixty--uh, fifty-four." For the remaining 50% of the trials, the confederate said his estimate with a question in his voice, that is, with a rising inflection.

At the end of the 40 influence trials, the experimenter collected the data sheets from both subject and confederate, then handed out new 25-space data sheets. The experimenter emphasized that the next trials were to be silent (see Appendix B). To assure anonymity, at the conclusion of the session, both participants would stuff their data sheets in a manila envelope on the wall marked "Groups of Two." Similar envelopes marked "Single Individuals" and "Groups of Three" were also present.

The 25 private acceptance trials then ensued, at the end of which the participants placed their sheets in the envelope. Each was given a post-experimental questionnaire (see Appendix C), and the confederate

was escorted from the room, ostensibly to another debriefing room. After about three minutes, the experimenter returned with a few debriefing questions.

The experimenter directed both participants to the library room in the building next door if they had just begun the experiment. If they were finished, the subject was reimbursed and was asked to leave his name and address. Debriefing was conducted by mail at the end of the study.

Helping session. Confederate and subject sat across from each other in the smaller "room" of the library. The confederate chose the chair farthest from the experimenter's end of the library. A movable divider approximately 25 cm. in height screened the middle of the table so that the participants could not see each others' questionnaires, but could clearly see each others' faces.

Both participants signed research consent forms, then were given a questionnaire booklet containing the PSI, Snyder's (1974) self-monitoring scale, Schwartz' (1973) AR scale, the SNIP, and Rosenberg's (1965) self-esteem scale, in that order. The experimenter told them that she would be working in the library, and to ask if they had any questions.

Five minutes after the participants began their booklets, the experimenter started to "bustle." She moved books upon the shelves and carried boxes back and forth. Once during this period, she climbed upon a chair within the subject's view to remove/replace a journal upon the top shelf of a bookcase. She also carried a small box of books to or from its resting place within the subject's view. The bustling period lasted five minutes. Ten minutes after the session began, the

experimenter created a small emergency in the library "room" completely out of sight of both subject and confederate. She climbed upon a chair and lifted a cardboard box filled with metal bookends and old books high over her head, then crashed the items (overturning the box) upon a metal filing cabinet. She simultaneously jumped to the floor amid the debris with an audible thump and ended sitting on the floor, hiding a stopwatch beside her leg. The independent manipulation of ambiguity was to groan after she jumped to the floor, or to remain silent. If the subject called out ("verbal help"), she was instructed to groan ambiguously, as if she might be either exasperated or in pain, with no intelligible reply.

The confederate, in the other "room" of the library, then performed his independent manipulation. In all conditions, he startled at the sound of the crash, then proceeded with one of three manipulations. In the certain positive condition, he said, "It sounds serious...(pause)... We should do something." In the uncertain condition, he said, "What was that?...(pause)...Should we do something?" In the certain negative condition, he said, "It doesn't sound serious," paused, and returned to his booklet. In all conditions, he remained "in character" in responding to any further verbalizations directed toward him by the subject. In the certain positive condition, however, he did not rise from his chair until after the subject had done so. Both the experimenter and the confederate were blind to their teammate's condition until the manipulation occurred.

The experimenter timed the latency of helping. Verbal help was defined when the subject called out to ascertain the well-being of the

experimenter. The experimenter kept the stopwatch running until the subject offered physical help, which was defined when the subject got up from his chair to look or walk around the partition to offer assistance. If the subject offered physical help, the experimenter assured him that she was OK, and that it had just been a bad day. The experimenter waited 3 minutes before she began to gather the scattered contents of the box.

The subject returned to finish his booklet. Upon completion, he was asked to fill out a 7-item "Interpersonal Perception Questionnaire" (see Appendix D) which contained Likert-type questions about his partner, the confederate. The experimenter then followed the same post-experimental procedure used after the conformity session.

Dependent variables

Helping. The major dependent variable in the helping situation was the latency of help, in number of seconds from the box crash. Subjects who did not help after 3 minutes were assigned a latency of 180 seconds; this latency was chosen because previous research (e.g., Latane and Darley, 1970) showed that the cumulative percentage of helping was almost completely level after three minutes.

Some subjects did not offer physical help, but only called out to ascertain the well-being of the experimenter, and some subjects offered both verbal and physical help. Both latency to verbal help and latency to physical help were recorded. In order best to capture the nature of helping in the present experiment, the following definition of helping was used. If subjects offered physical help, whether or not they also offered verbal help, the physical helping latency was used as the

dependent variable. If subjects offered only verbal help, this latency was used as the dependent variable. Subjects who offered neither physical nor verbal help, as discussed above, were assigned a latency of 180 seconds.[7]

Seven post-experimental questions from the Interpersonal Perception Questionnaire were used as manipulation checks. The experimenter, after the session, informally apologized for dropping the box, and asked subjects if they thought their questionnaire responses had been affected, whether they thought she needed help, etc.

Conformity. The major dependent variables in the conformity situation were the subject's estimates of the number of dots perceived. During the influence period, the means of subjects' estimates in each block of ten trials were used as dependent variables. The trial blocks were created such that each had a mean of 40 dots, and the standard deviations were the same from block to block. During the private acceptance period, the mean of each block of 5 trials was used. Higher mean estimates indicated that subjects accepted influence from the confederate. Sixteen 7-point Likert items from the post-experimental questionnaire (see Appendix C) served as manipulation checks.

RESULTS

Major effects

Helping. A 2 (groan/no groan) by 3 (verbal interpretation of situation) analysis of variance of the helping variable showed main effects for groan, $F(1, 107) = 4.02$, $p < .05$, and interpretation of situation, $F(2, 107) = 6.67$, $p < .002$, with no interaction.[8] Subjects helped more when the experimenter groaned ($\bar{X} = 85.40$, $n = 55$) than when she did not ($\bar{X} = 111.22$, $n = 58$). Subjects also helped less in the certain negative condition ($\bar{X} = 134.14$, $n = 37$) than in the uncertain ($\bar{X} = 89.21$, $n = 39$) or the certain positive ($\bar{X} = 73.14$, $n = 37$) conditions, which did not differ from each other. These results show that, as predicted, both ambiguity of the helping situation and the behavior of the other person in the situation significantly affected helping behavior. The magnitude of the two main effects is shown by the fact that the eta for the confederate's interpretation of the situation was .32, while the eta for the groan variable was .16; they accounted for 10% and 3% of the variance, respectively.

Conformity. A 2 (length of exposure) by 2 (hesitation of confederate) by 4 (influence trial blocks) analysis of variance with repeated measures on the last factor revealed a marginal main effect for length of exposure $F(1, 109) = 3.87$, $p < .06$. The main effect for hesitation of confederate was not significant, nor did any interactions achieve significance. A 2 (length of exposure) by 2 (hesitation of confederate) by 5 (private acceptance trial blocks) analysis of variance with repeated measures on the last factor revealed a main effect for length of

exposure, $F(1, 109) = 3.95$, $p < .05$. As predicted, subjects were more influenced in the ambiguous (5-second) condition than in the unambiguous (8-second) condition in both compliance ($X = 43.24$ and 41.36, respectively, $n = 58$ and 55) and private acceptance ($X = 43.07$ and 40.81) periods. These results show that, as in the helping session, the ambiguity of the situation affected conformity behavior. However, the confederate seemed to be equally influential in the conformity situation whether he was confident or hesitant.

Relationship between helping and conformity. There was virtually no relationship between helping behavior and conformity in the present study. Correlations between helping and the nine repeated measures of conformity ranged from .02 to -.10.

In order further to examine the relationship between helping and conformity, subjects were divided into those who helped ($n = 55$) and those who did not ($n = 58$). Conformity scores were standardized within each helping condition, then the helping variable was used as an "independent variable" in repeated-measures analyses of variance. Results for the 2 (help/no help) X 2 (hesitation of confederate) X 2 (length of exposure) X 4 (influence trial blocks) analysis of variance with repeated measures on the last factor yielded no main effect for helping, nor were any interactions of helping with the other independent variables significant. Similar null results were obtained with analyses of the private acceptance trial blocks.

Manipulation checks

Conformity session. Subjects strongly agreed that their responses were anonymous during the private acceptance period (grand mean = 6.33

on a 7-point scale). Subjects' belief that their behavior was not under surveillance indicated that the attempt to measure private acceptance was successful. There were no effects of the independent manipulations upon this variable.

A multivariate analysis of variance was performed upon the seven postexperimental questions which showed any effects due to the independent manipulations. Multivariate main effects for length of exposure, $F(7, 103) = 2.26$, $p < .04$, and hesitation of confederate, $F(7, 103) = 6.23$, $p < .0001$, were found, and the interaction was not significant.

Subjects in the 8-second (unambiguous) condition were more likely than 5-second subjects to agree that they could judge the number of dots better than their partners, $F(1, 109) = 4.84$, $p < .03$, and were correspondingly more likely to agree that their partners overestimated the number of dots, $F(1, 109) = 8.37$, $p < .005$. Subjects in the 5-second (ambiguous) condition found the dot-counting task to be more difficult, $F(1, 109) = 5.73$, $p < .02$, than 8-second subjects, and were correspondingly less likely to feel good about their performance on the dot-counting task, $F(1, 109) = 5.16$, $p < .03$. These findings clearly show that the manipulation of length of exposure created an ambiguous situation in which subjects were unsure about their performance on the task.

Subjects who participated with a confident confederate were more likely than those who participated with a hesitant confederate to agree that their partners' estimates influenced their own estimates, $F(1, 109) = 10.15$, $p < .002$. Subjects with confident confederates agreed that their partners were confident, $F(1, 109) = 24.05$, $p < .0001$, and disagreed that their partners were hesitant, $F(1, 109) = 13.32$, $p <$

.0005. These checks for the confederate hesitancy variable showed that the manipulation was successful in producing the desired perceptions of the hesitant and confident confederates.

Helping session. Analyses of variance of the questionnaire items showed that subjects in the certain positive condition were more likely than those in the certain negative condition to report that they were concerned about their partners' opinion of them, $F(2, 107) = 4.70$, $p < .02$; neither condition differed from the uncertain condition. Subjects in the groan condition were also marginally more likely than those in the no groan condition to report that they were concerned about their partners' opinion, $F(1, 109) = 3.78$, $p < .06$. On the item "My partner's behavior influenced my own behavior," a two-way interaction occurred, $F(2, 107) = 3.33$, $p < .05$. In both the certain negative and uncertain conditions, subjects in the groan condition were more likely than those in the no groan condition to agree that their partners' behavior influenced their own. In the certain positive condition, however, no groan subjects were more likely to report that their partners' behavior influenced their own (see Table 4).

Personality variables

The matrix of intercorrelations for the personality scales is presented in Table 5. The scale reliabilities appear in the diagonal of the matrix. The major variables of interest in the present study were the four subscales of the PSI. Results for the other personality variables appear in Appendix E.

Helping session. Median splits were used to dichotomize the personality measures. Results of 2 (groan/no groan) by 3 (confederate

Table 4

Perception of Influence by Partner as a Function of Groan and Verbal Interpretation Conditions

	Verbal Interpretation of Situation		
Groan Variable	Certain Negative	Uncertain	Certain Positive
Groan	3.08	2.76	2.39
No Groan	2.41	1.88	3.35

Note. Entries are mean scores from a 7-point Likert format item, and higher scores indicate agreement. Entries within each column differ from each other at the .05 level.

Table 5

Scale Intercorrelations for 113 Male Subjects

		1	2	3	4	5	6	7	8	9
Self Monitoring	1	75								
Schwartz AR	2	-20	72							
SNIP (Informational)	3	-02	-20	89						
SNIP (Normative)	4	-20	05	52	87					
Self Esteem	5	-07	13	-35	06	82				
Social Self Awareness	6	-19	-07	58	38	-21	74			
Normative	7	-12	-15	49	69	-04	45	72		
Independence	8	37	-32	-01	-50	-28	-08	-21	77	
Confidence	9	-05	-10	18	-24	-51	19	-07	37	65

Note. $r > .19$ is significant at the .05 level. $r > .24$ is significant at the .01 level. $r > .30$ is significant at the .001 level. N = 113 for all correlations.

interpretation of the situation) by 2 (personality) analyses of variance revealed no main effects or interactions involving personality for the independence, normative or confidence subscales of the PSI. A main effect occurred for the social awareness scale of the PSI, $F(1, 101) = 4.21$, $p < .05$. Subjects who reported a high awareness of their behavior in social situations were more likely to help than those who did not. No interactions were found to be significant.

Conformity session. Median splits were used to dichotomize the personality measures. Results of 2 (length of exposure) by 2 (hesitation of confederate) by 2 (personality) by 4 (influence blocks) analyses of variance, with repeated measures on the last factor, and similar analyses for the private acceptance blocks, revealed no main effects or interactions involving personality during either the influence or private acceptance periods for the social awareness subscale of the PSI.

Results for the normative subscale of the PSI during the influence period showed a hesitation of confederate by personality interaction, $F(1, 105) = 6.10$, $p < .02$. As presented in Table 6, the results show that low normative people were more influenced by a hesitant confederate, whereas high normative people were more influenced by a confident confederate. This interaction did not occur during the private acceptance trials, however. During the private acceptance period, a length of exposure X personality X trial blocks interaction occurred, $F(4, 420) = 2.47$, $p < .05$ (see Table 7). Simple effects tests showed that there were no effects of personality in the 5-second condition, and subjects were more influenced in the last four trial blocks than in the first. In the 8-second condition, however,

Table 6

Compliance as a Function of Confederate Behavior and the Normative and Confidence Subscales of the PSI

	Confederate Behavior	
PSI subscales	Hesitant	Confident
Normative Subscale		
Low normative	42.99bc	41.28ab
High normative	40.80a	43.78c
Confidence Subscale		
Low confidence	41.35a	44.12
High confidence	42.69a	41.01a

Note. Within each subscale, entries with the same subscript do not differ at the .05 level.

Table 7

Private Acceptance Trial Blocks as a Function of Length of Exposure and Normative Subscale of PSI

	Trial Blocks				
Length of Exposure	1	2	3	4	5
5 seconds					
Low Normative	41.99	43.89	43.24	43.17	43.15
High Normative	40.71	44.07	44.72	43.18	42.36
8 seconds					
Low Normative	40.41	41.87	41.82	42.03	41.53
High Normative	39.35	41.06	39.07	39.87	40.39

Note. Subjects in the 8-second, high normative condition were less influenced than 5-second subjects in the last four trial blocks.

high normative subjects were less influenced than low normative subjects in the last three trial blocks.

Results for the confidence subscale of the PSI also showed a hesitation of confederate by personality interaction, $F (1, 105) = 5.38$, $p < .03$ during the influence period. Simple effects tests (see Table 6) showed that a low confident subject with a confident confederate was more heavily influenced than any of the other three groups; high confident subjects were not affected by the behavior of the confederate. During the private acceptance period, a hesitation of confederate by personality by trial blocks interaction occurred, $F (4, 420) = 3.36$, $p < .01$. As presented in Table 8, the results show a significant quadratic trend for low confident subjects with confident confederates, and a marginally significant quadratic trend for confident subjects with hesitant confederates. Results for the other two groups showed a non-significant linear increase across trial blocks. A very similar hesitation of confederate by personality by trial blocks interaction occurred during the private acceptance period for the independence subscale of the PSI, although it did not achieve significance, $F (4, 420) = 2.25$, $p < .07$.

Table 8

Private Acceptance as a Function of Hesitation of Confederate and Confidence Subscale of the PSI

	Trial Blocks				
Confederate Hesitation	1	2	3	4	5
Hesitant					
Low Confidence	40.80	42.33	42.13	42.53	42.62
High Confidence	40.27	42.71	41.78	40.91	40.13
Confident					
Low Confidence	42.69	45.27	43.44	43.68	43.38
High Confidence	39.42	40.97	41.34	41.20	41.75

DISCUSSION

Manipulation checks

The manipulations of ambiguity and confederate certainty in the present study were successful in both the conformity and the helping situations. In the conformity session, subjects clearly saw the hesitant confederate as hesitant, and also reported that they were less influenced by him. Subjects in the ambiguous condition found the task to be more difficult than subjects in the unambiguous condition, and were also less likely to report that they felt good about their performance on the task. Subjects in the ambiguous condition were less likely to agree that they could count the number of dots better than their partners, and were also less likely to agree that their partner overestimated the number of dots. Thus, both the manipulation of confederate hesitancy and the manipulation of situational ambiguity were correctly perceived by subjects.

In the helping situation, subjects in the certain positive condition were more likely than certain negative subjects to report that they were concerned about their partner's opinion of them. Subjects in the groan condition were marginally more likely to report a similar concern about their partner's evaluation than no-groan subjects. In an interesting interaction (which was not reflected in the behavioral data) subjects in the groan condition in both certain negative and uncertain cells were more likely than no groan subjects to agree that their partner's behavior influenced their own. However, in the certain positive condition, no groan subjects were more likely to report influence from

their partners. This interaction will be discussed in further detail below.

Major effects

Helping. The data from the helping session yielded the hypothesized main effects. A main effect occurred for the groan/no groan manipulation, indicating that an ambiguous helping situation, in which it is less certain that help is needed, elicited less help. This result further strengthens findings in the literature (e.g., Clark & Word, (1974) which showed that more ambiguous situations had lower rates of helping. Greater ambiguity in the helping situation makes it less obvious that helping is the appropriate response (see Staub, 1972; Schwartz, 1976).

A main effect also occurred in the helping session for the confederate's verbal interpretation of the situation. Less helping occurred when the confederate defined the situation as not serious than when he interpreted the situation as a serious one. These results are consistent with and provide support for the studies of Staub (1972), Bickman and Rosenbaum (1977) and Bickman (1979) which showed that the verbal definition of the situation had strong effects on helping behavior. Consistent with Staub's (1972) results, the present data show that helping may be either decreased or increased by the verbal interpretations of others.

Taken together, these two main effects support the present model. They show that subjects in a helping situation are alert to information from the situation and from other people within the situation to decide upon a response.

The interaction discussed above concerning subjects' perceptions of

how they were influenced by their partners in the helping session may help to explain the absence of the predicted behavior of confederate by ambiguity of situation interaction in the behavioral helping data. On the basis of their self-reports, it seemed that subjects utilized the different sources of information available to them, but perhaps relied more heavily upon the partner's behavior than upon the information provided by the experimenter's groan. Based upon the main effect which showed that subjects were more likely to help in the groan condition, the behavior of the confederate seemed to be strong enough to override the "first impulse" to help of certain negative and uncertain subjects upon hearing a groan from the experimenter, and the first impulse not to help of certain positive subjects who did not hear a groan. It seems likely that the behavior of the confederate, since the participants were seated face to face across a library table, was more salient than the behavior of the experimenter, whose distress was not visible. Evidence for the greater strength of the confederate behavior variable was provided by the fact that confederate behavior accounted for 10% of the variance, and the groan variable accounted for only 3% of the variance, in helping.

Subjects in the uncertain confederate condition, where it was predicted that the groan would be most effective in producing helping, reported a pattern of influence the same as subjects in the certain negative condition (see Table 4). Recall that the confederate remained physically inactive in all three conditions, thus effectively modelling inaction. Therefore, when groan subjects in the certain negative and uncertain conditions reported that their partners' behavior influenced

their own, the influence was in the direction of inaction. The information the groan provided to uncertain and certain negative subjects concerning the seriousness of the emergency seemed to be outweighed by the more salient information provided by the inaction (both verbal and nonverbal) of the confederate.

In the absence of a confederate, both helping and not helping seemed to entail medium cost in the present study. To offer help which the experimenter did not need might cause embarrassment for her, and, correspondingly, some embarrassment for the subject as well. Not to offer help, however, also entailed potential costs in self-blame and in blame from the experimenter (as one experimenter wrote of a nonhelper, "I could have died for all he cared!"). The confederate seemed to add strong potential costs to the situation, depending upon his behavior. To offer help when the confederate had interpreted the situation as trivial meant that the subject risked looking foolishly concerned in the eyes of the confederate. Correspondingly, not to offer help when the confederate had interpreted the situation as serious also entailed possible censure. Thus, the reward-cost matrix in the present experiment seemed to favor placing greater emphasis upon the information provided by the confederate than upon the information provided by the groan of the experimenter.

In sum, then, these data are fairly consistent with the present model even though the predicted confederate behavior X situational ambiguity interaction was not significant. The fact that the manipulations were not of equal strength, and thus were not given equal weight in a subject's decision to help, seems to be the reason that the

predicted interaction was not found in this study. This finding is important of itself, however, for it emphasizes that a decision-making or information weighting model is a fruitful way to analyze behavior in the helping situation, and that all pieces of information are not weighted equally.

Conformity. The results for the conformity session showed that, as predicted, subjects were more influenced when the task was ambiguous than when the task was less ambiguous. This result is consistent with the classic work of Sherif (1935) and Asch (1951) and also parallels more recent findings (see Allen, 1965). Subjects in the ambiguous conditions were less likely to notice that their partners overestimated; Sherif (1935) noted that many of his subjects were unaware of influence and Asch, as discussed earlier in the present paper, noted a similar effect for ambiguity of task. In addition, subjects in the ambiguous condition were less confident of their performance, both on absolute (feeling good) and relative (in comparison to their partners) levels.

These findings illustrate one of the key points of the present model: that conformity depends to a large extent on the relative weight one attaches to information one obtains from others. Subjects in the ambiguous situation were less confident of their own estimates, and gave correspondingly less weight to their own perceptual information and more weight to information obtained from another individual.

Interestingly, there was no main effect for hesitation of confederate upon conformity. Subjects were equally likely to accept information from a hesitant confederate or from a confident confederate. This result may best be explained by Crano's (1970) finding that, while

subjects were more influenced by an expert than by an inexpert partner, they were still greatly influenced by the inexpert partner, compared to control subjects. The length of exposure of the slides in Crano's (1970) study was 5 seconds; in this ambiguous situation, his subjects seemed to use any information available to them, even when the information was of demonstrably low quality.

Subjects in the present study accepted influence equally from hesitant and confident confederates. This was true even though the manipulation checks clearly showed that subjects perceived the hesitant confederate as hesitant. Surprisingly, subjects with hesitant confederates reported that they were less influenced, yet their conformity behavior showed no such effect.

This seeming inconsistency may be explained by recourse to subjects' self-reports. There were no significant effects for the confederate hesitation variable upon subjects' perceptions of relative expertise in counting dots. Unlike the subjects in the 5-second condition, who clearly found the task to be more difficult, were less likely to notice that their partners overestimated, and felt relatively poorly about their performance on the task, no such reports were given by subjects with hesitant confederates. As an interesting aside, 5-second subjects were not more likely to report that they were influenced by their partners, even though their conformity behavior shows that they were influenced. Thus, the key variable in conforming behavior seems not to be one's perception of whether or not one is influenced (for subjects in both the 5-second conditions and subjects with hesitant confederates were incorrect in their perceptions of being influenced), but

one's perception of the relative worth of one's own information on a given task. This finding is of great importance to the present analysis of conformity behavior, for it emphasizes that conformity is a function of the differential weighting of perceptual (internal) versus social (external) information.

The predicted hesitation of confederate by ambiguity interaction was not found to be significant. The reason seems to be because information from the hesitant confederate was accepted to the same extent as information from the confident confederate. Previous research (e.g., Crano, 1970) has shown that the perceived expertise of the influence source is an important determinant of conformity behavior. As discussed above, however, it is clear that the hesitant confederate was not perceived as inexpert, or an invalid source of information about reality. Much as in the helping situation, the relative strength of the two manipulations to affect the dependent measures was disproportionate. It is interesting to speculate about the results of an expertise manipulation (wherein the information provided by another person is accorded greater or lesser weight) combined with an ambiguity manipulation. The present model would predict a main effect for expertise and an interaction between expertise and ambiguity. That is, the expert source should be more influential than the inexpert source, and should be even more influential in the ambiguous condition.

Personality variables

Helping session. In the helping session, subjects who were high on the social awareness subscale of the PSI helped more than those who scored low on this scale. This is an interesting finding, since none of

the other subscales of the PSI showed any relationship to helping. In addition, there were no significant interactions. Scores on the PSI did not affect subjects' reactions either to the groan manipulation or to the manipulation of confederate behavior. The absence of interactions offers evidence for the validity of this subscale by suggesting that "social" awareness may actually operate as "social self" awareness. The scale seemed to measure awareness of one's own behavior in social situations, independently of being influenced by the behavior of others. It is a strength of the PSI that awareness of the behavior of the self is unrelated to independence of the behavior of others.

Support for the hypothesis that personality would be more important when external information was ambiguous came from the significant interaction between Schwartz' AR scale and the confederate's interpretation of the situation. No effects of personality occurred when the confederate was certain of the correct course of action, in either a positive or negative way. Personality only played a role when the confederate was uncertain as to the correct course of action, and in that condition, "moral" subjects helped more than "not moral" subjects. These results show an interesting relationship to Schwartz and Fleischman's (1978) findings, which showed that subjects with strong "moral" scores, either negative or positive, were influenced by their own norms, but not by a legitimacy of need manipulation. The Schwartz and Fleischman study used a telephone helping request, so the situational cues provided were slight. The present results for the uncertain confederate condition, then, seem to parallel the Schwartz and Fleischman results. In the other two conditions, it seemed that the confederate's behavior provided

sufficient information to decide on a helping response. As a final note, no interaction with the groan variable was obtained, indicating that high and low moral subjects did not differ in their response to this piece of information.

Finally, high self-esteem subjects helped more than low self esteem subjects. This finding is generally consistent with previous research (e.g., Wilson, 1976).

Conformity. In the conformity session, high self-monitors, the changeable people, were more influenced in the compliance trials, but not in the private acceptance trials. This finding fits Snyder's (1974) conceptualization of self-monitoring as a conscious product of acting, or adapting one's behavior to the situation, in order to be liked or accepted. This behavior disappeared during the private acceptance trials, when there were no longer any social gains to be obtained from conforming behavior.

The normative subscale of the SNIP showed a pattern of results which partially supported the hypotheses. On both compliance and private acceptance trials, there were no differences due to personality in the unambiguous (8-second) condition. In the ambiguous condition, however, high normative subjects were more influenced than low normative subjects. Thus, as hypothesized, personality only became important when the situation was ambiguous. This interaction was complicated by an interaction with confederate hesitation, however. With a confident confederate, high normative subjects were more influenced. When the confederate was hesitant, high normative subjects were more influenced in the ambiguous condition, whereas low normative subjects were more

influenced in the unambiguous condition. It is apparent that personality affected the response to the independent variables, but previous research using the SNIP (e.g., Sistrunk, 1973) offers little aid in interpreting this result.

The self-esteem variable yielded an interaction with length of exposure during the compliance trials only. High self-esteem subjects were uniformly sensitive to the ambiguity manipulation, but low self-esteem subjects remained "stubborn" until the last trial block, when they suddenly showed the expected length of exposure effect. This finding may be partially explained by McGuire's (1968) note that low self esteem persons were generally lower in intelligence than high self esteem persons, thus might be somewhat slower to respond in many situations.

Finally, three of the subscales of the PSI showed interactions with the confederate hesitancy variable. High normative subjects were more influenced by a confident confederate, whereas low normative subjects were more influenced by a confident confederate. It is interesting to compare this result with the results for the normative subscale of the SNIP. In both cases, low normative subjects seem to be behaving exactly the opposite of predictions. Perhaps these subjects, as self-reported nonconformers, were actually anticonformers (e.g., Willis & Hollander, 1964; Stricker, Messick & Jackson, 1970), responding in the opposite way rather than in an independent way to conformity pressure.

Results for the confidence subscale of the PSI showed that high confident subjects were not affected by the hesitation of confederate variable. However, low confident subjects were more influenced by

confident confederates. The confidence subscale of the PSI is oriented toward social confidence, and this result provides evidence for the validity of the variable. In the present conformity situation, subjects who reported low confidence in their own judgments relative to others' judgments were more sensitive to a manipulation of confidence in another person. This variable thus seemed to measure a specific tendency to give greater weight to the information provided by another person (external information) when that information was of high quality. Since low social confidence subjects discriminated on the basis of the quality of the information provided by the other person, their greater tendency to accept influence was not "blind."

Conclusions for the personality variables. The data for the personality variables were extremely mixed with regard to the hypotheses of the present study. On the one hand, results for Schwartz' AR scale showed the predicted interaction in the helping situation, and there was evidence for the predicted interaction in the conformity situation for the normative subscale of the SNIP. However, the PSI seemed to be largely sensitive to the behavior of the confederate, and not to the ambiguity of the situation in the conformity session, and was generally insensitive to both independent variables in the helping situation.

There is no evidence that the same personality variables are affecting conformity and helping behavior in similar ways. This result indicates that the hypotheses of the present model concerning the actions of personality variables needs revision. Chiefly, the model seems to be too simplistic in its assumptions. Information processing as a function of personality appears to be a very complex phenomenon.

However, the present results are encouraging enough to indicate that the assumptions of the model are not wholly incorrect.

Conclusions

The present results do not show completely clear parallels between helping and conformity situations, at least in part because one of the conformity manipulations was unsuccessful. However, the data do offer support for the basic assumptions of the present model. Ambiguity clearly operated in a similar fashion in both conformity and helping situations. As predicted on the basis of the literature, conformity was increased, and helping was decreased, when the situation was ambiguous. The results also show that potential helpers and potential conformers are affected by the behavior of others around them. As predicted in the helping situation, subjects utilized the information provided by the situational definition of the confederate; their helping behavior was affected in both negative and positive ways by the confederate's verbal behavior. In the conformity situation, the manipulation did not succeed in varying the quality of information provided by the confederate; thus, parallels with the helping situation cannot be clearly drawn. However, subjects in the conformity situation used the overestimation information provided by the confederate to arrive at their own perceptual judgments.

Support for the information-weighting model elaborated in the present study came from subjects' self reports. The key variable in conforming behavior seemed not to be the perception of whether or not one was influenced, but the perception of the worth of one's own perceptual (internal) information on a given task relative to the social (external) information provided by another person.

Thus, the basic tenets of the present model seem to be valid. Future research, in which the strength of the information provided by situational and interpersonal variables is controlled, can discover the boundaries of usefulness of an information-weighting model of helping and conformity.

APPENDIX A

PERCEIVED SOURCES OF INFLUENCE SCALE

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PERCEIVED SOURCES OF INFLUENCE SCALE

This study is designed to discover how you feel about certain personal values. Read each item carefully. Please respond to each statement according to how you feel about the statement. There are no right or wrong answers; there are only personal opinions. Your responses will be anonymous, so please be frank in stating your real feelings, regardless of how you think others may feel. Please mark your responses on the computer answer sheet according to this scale:

1 Strongly disagree
2 Moderately disagree
3 Slightly disagree
4 Neutral
5 Slightly agree
6 Moderately agree
7 Strongly agree

Please make your pencil marks dark, and erase any corrections completely. The answer sheets will be scored by machine.

1. It's important for me to understand how people are going to behave.
2. I worry about dressing appropriately for social occasions.
3. I try to obey rules whenever possible.
4. I would almost never compromise my own opinions to get someone to like me.
5. In social situations, I often feel clumsy and awkward.
6. It's important for me to understand what's going on around me.
7. No matter what situation I'm in, I'm basically the same person.
8. It is necessary to obey the rules of society.
9. I'm very much aware of my behavior when I'm with other people.
10. I would almost never change my behavior to please others.
11. I don't really care what other people think of me.

12. I'm easily embarrassed.
13. I like to understand any social situation I'm in.
14. I seldom use other people to guide my own behavior.
15. I'm usually quite confident of my own judgments in any situation.
16. What other people say has little effect on my actions.
17. Social rules are necessary to keep our culture going.
18. I like to avoid doing things that make me stand out in a crowd.
19. I don't generally have a lot of faith in my own judgment.
20. In social situations, I'm keenly aware of my own behavior.
21. It's important that people should approve of me.
22. In an uncertain situation, I depend on my own judgment of what's the right thing to do.
23. I watch other people carefully in new situations.
24. I seldom use other people's opinions as a guide to what I should believe.
25. I'm concerned about people's opinions of me.
26. I like to do the proper thing in any situation.
27. No matter who I'm with, I'm pretty much the same person.

APPENDIX B

INSTRUCTIONS

APPENDIX B

INSTRUCTIONS

This experiment deals with group effects on the human perceptual process. During the quarter, we'll be testing single individuals, and groups of two and three.

Slides with varying numbers of dots will be shown, and your job, _____ and _____ is to count the dots and report your best estimate. The slide will show for _____ seconds, and then a blank slide will give you _____ seconds to state your estimates out loud as you write them down. You'll both say your estimates out loud on each trial. In the first block of 10 trials, you ___ will say your estimate first. In the second block of 10 trials, you ___ will say your estimate first, and you'll alternate back and forth. I'll tell you when to alternate, and there'll also be an orange reminder slide.

You'll be writing your estimates on these data sheets. To show you how it's done, I'll give you one practice trial.

(PRACTICE)

OK--any questions? Then we're ready to start the experiment. Remember, _____, you say your estimates first in the first block of 10.

(40 TRIALS)

First, let me collect your forms for the first half. Now, in the second half of the experiment, we're interested in individual accuracy. The timing of the slides will be the same, but all the rest of your estimates are to be written. Be sure not to say any estimates out loud.

We want your responses to be anonymous, so please do not put your names on these data forms for the second half. To insure that your responses will be anonymous, you'll each put your data sheet in that envelope marked "Groups of Two."

OK--any questions? Then we're ready to start the second half. Again, be sure not to say any estimates out loud.

(25 TRIALS)

Now, first I'd like you to put your sheets in the envelope over there. I have a post-experimental questionnaire for each of you, and I'll need to interview each of you separately. So, _____, you come with me, and ___, you go ahead and fill out that questionnaire and I'll be back with you in a few minutes.

APPENDIX C

POST-EXPERIMENTAL QUESTIONNAIRE

APPENDIX C

POST-EXPERIMENTAL QUESTIONNAIRE

Visual Perceptual Acuity Experiment

Please answer the following questions about your partner and the experimental task. Your answers will remain anonymous, so please respond as frankly as possible, according to the following scale:

1 Strongly disagree
2 Moderately disagree
3 Slightly disagree
4 Neutral
5 Slightly agree
6 Moderately agree
7 Strongly agree

___ 1. My partner was influential.

___ 2. I could judge the number of dots better than my partner.

___ 3. My responses in the second half of the experiment were anonymous.

___ 4. My partner tended to underestimate the number of dots.

___ 5. I found the dot-counting task to be difficult.

___ 6. I feel good about my performance on the dot-counting task.

___ 7. My partner's estimates influenced my own estimates.

___ 8. I was concerned about what my partner thought of my performance on the task.

___ 9. My estimates would have been lower if I had been alone.

___10. The dot-counting task made me feel good about myself.

___11. I was confident of the correctness of my own estimates.

___12. I was concerned about what the experimenter thought of my performance on the task.

___13. My partner was confident of his/her estimates.

___14. I wanted to do well on the task.

___15. I usually had enough time to get a good estimate of the number of dots.

___16. My partner seemed hesitant about his/her estimates.

APPENDIX D

INTERPERSONAL PERCEPTION QUESTIONNAIRE

APPENDIX D

INTERPERSONAL PERCEPTION QUESTIONNAIRE

The purpose of this short survey is to gain some knowledge of how people perceive each other. Your experimenter will designate one of the people who participated with you today as your "partner." Please rate this person as honestly as possible on the scales below. Your answers will remain anonymous, and will NEVER be seen by your partner, so do not hesitate to give your honest evaluation of this person.

1 Strongly disagree
2 Moderately disagree
3 Slightly disagree
4 Neutral
5 Slightly agree
6 Moderately agree
7 Strongly agree

134. My partner was confident.

135. My partner's behavior influenced my own behavior.

136. I would like to participate with my partner in another experiment.

137. My partner seemed to lack self-confidence.

138. I was concerned about my partner's opinion of me.

139. My partner seemed to be a somewhat hesitant person.

140. I would place a lot of confidence in my partner's judgment in most situations.

APPENDIX E

ADDITIONAL PERSONALITY ANALYSES

APPENDIX E

ADDITIONAL PERSONALITY ANALYSES

Helping. Median splits were used to dichotomize the self monitoring scale, the self-esteem scale, and both subscales of the SNIP. Results of 2 (groan/no groan) by 3 (confederate interpretation of the situation) by 2 (personality) analyses of variance revealed no main effects or interactions involving personality for the self-monitoring scale and both subscales of the SNIP. A main effect for self esteem was found, $F(1, 101) = 12.81$, $p < .001$. High self esteem subjects were more likely to help than low self esteem subjects.

In addition, the results revealed that a two-way interaction between the AR scale and the confederate's interpretation of the situation, $F(2, 101) = 3.31$, $p < .05$, occurred. Post hoc simple effects tests showed that there were no effects of personality in either the certain negative or certain positive conditions. In the uncertain condition, however, "moral" subjects helped significantly faster than "not moral" subjects. Means and results of post hoc analyses are presented in Table 9. These results for the AR scale fit the interpretation of the present model very well: the effects of personality only occurred when external cues provided by the other person were ambiguous, that is, when there was insufficient external information to reach a decision to help or not to help.

Conformity. Results revealed a main effect for self-monitoring

Table 9

Effects of Ascription of Responsibility and Situational Interpretation upon Helping Behavior

	Ascription of Responsibility	
Interpretation of Situation	"Moral"	"Not Moral"
Certain Negative	136.35a	130.50a
Uncertain	54.22a	119.19b
Certain Positive	84.36a	66.30a

Note. Table entries are helping latencies in seconds. Entries within each row with the same subscript do not differ at the .05 level.

during the influence trials, $F (1, 105) = 4.65$, $p < .04$; "changeable" people were more influenced. There were no effects for the self-monitoring variable during the private acceptance period, which indicated that the behavior change was merely compliance.

Results for the normative subscale of the SNIP were fairly complex. During the influence period, a length of exposure X personality interaction occurred, $F (1, 105) = 4.78$, $p < .04$. Simple effects tests showed that there were no differences due to personality in the unambiguous (8-second) condition; however, in the ambiguous (5-second) condition, high normative subjects were more influenced than low normative subjects. An identical interaction occurred during the private acceptance period, $F (1, 105) = 7.54$, $p < .007$, indicating that the behavior change was enduring, and not the result of mere compliance. Means and post hoc analyses are presented in Table 10. A significant length of exposure X personality X private acceptance trial blocks interaction, $F (4, 420) = 2.96$, $p < .02$) showed that high normative subjects in ambiguous conditions showed a nonsignificant quadratic trend in the amount of influence as trial blocks progressed, whereas the other three groups were fairly uniformly influenced across the trial blocks. Means are given in Table 11. Finally, a significant hesitation of confederate X length of exposure X personality interaction occurred, $F (1, 105) = 4.41$, $p < .04$. As presented in Table 12, simple effects tests showed that, with a confident confederate, there was only a main effect for personality, with normative people more influenced. With a hesitant confederate, however, high normative people were more influenced in the ambiguous condition, whereas low normative people were more influenced

in the unambiguous condition.

The analyses of self esteem showed a length of exposure by personality by trial blocks interaction during the influence period, $F(3, 315) = 4.22$, $p < .006$. As presented in Table 13, simple effects tests revealed that high self-esteem subjects were affected by the length of exposure manipulation fairly consistently across trial blocks, whereas low self esteem subjects were unaffected by the manipulations until the last trial block. As expected, subjects were more influenced in ambiguous conditions. However, no effects of personality were found during the private acceptance period, which indicates that the behavior change was compliance only.

Table 10

Conformity as a Function of Length of Exposure and Normative Subscale of SNIP

Type of Influence	Length of Exposure	
	5 seconds	8 seconds
Compliance Trials		
Low Normative	41.36a	41.84a
High Normative	44.75b	41.13a
Private Acceptance Trials		
Low Normative	40.42a	41.59a
High Normative	45.19b	40.39a

Note. Table entries are mean number of dots reported. Within each type of influence, entries with the same subscripts do not differ at the .05 level.

Table 11

Private Acceptance as a Function of Trial Blocks, Length of Exposure, and Normative Subscale of SNIP

	Trial Blocks				
Length of Exposure	1	2	3	4	5
5 seconds					
Low Normative	39.63	41.59	40.51	39.95	40.43
High Normative	42.87a	46.01bc	46.68b	45.70bc	44.69c
8 seconds					
Low Normative	40.66	42.41	41.43	42.29	41.16
High Normative	39.79	41.21	39.78	39.96	41.23

Note. Within the second row of entries, means with the same subscripts do not differ at the .05 level. Within the other three rows, the means do not differ reliably. Within each column, the means for the second row differed significantly from the other rows in all trial blocks.

Table 12

Private Acceptance as a Function of Length of Exposure, Hesitation of Confederate and Normative Subscale of SNIP

Length of Exposure	Low Normative	High Normative
5 seconds		
Hesitant Confederate	39.66ab	45.01cd
Confident Confederate	41.17ab	45.37d
8 seconds		
Hesitant Confederate	43.00c	37.82a
Confident Confederate	40.18b	42.97c

Note. Means with the same subscript do not differ at the .05 level.

Table 13

Influence Trial Blocks as a Function

of Length of Exposure and Self Esteem

	Trial Blocks			
Length of Exposure	1	2	3	4
5 seconds				
High Esteem	45.12	43.66	43.21	43.91
Low Esteem	42.76	41.21	41.99	43.83
8 seconds				
High Esteem	41.64	40.06	40.56	41.26
Low Esteem	43.57	41.93	41.76	40.86

Note. For low esteem subjects, there were no significant differences due to the manipulation until trial block 4. High esteem subjects differed by confederate condition on all trial blocks.

FOOTNOTES

FOOTNOTES

[1] I will use the definition of conformity as a general term referring to any acceptance of influence from another which is not defined by the acceptor as helping (Allen, 1965; Festinger, 1954; Kiesler & Kiesler, 1969). Conformity is divided into two categories: compliance, or temporary acceptance of influence without any corresponding change of attitude, and private acceptance, which is lasting acceptance of influence because of a change of internal conviction. Kelman's (1958) tripartite division of conformity will not be used because of the paucity of further research (Cook & Flay, 1978). I should also point out that both helping and compliance may occur in response to either a direct request (Could you spare a dime?; Please fill out this form) or an indirect request (groan; Asch situation).

[2] The present analysis differentiates the two on the basis of the subject's perception of his/her behavior as compliance or as helping. In most instances, I believe, the subject will perceive the behavior as helping. This definition has interesting implications for Brehm's (1966) reactance theory. The present model suggests that reactance would occur upon a subject's sudden redefinition of the situation from helping to compliance.

[3] Festinger (1950) distinguished between physical reality, which is objective and testable, and social reality, which is that defined by

other people. Physical and social reality are usually in close harmony (Berger & Luckman, 1967; McLeod & Chaffee, 1972), except in the conformity laboratory.

4 Festinger's (1954) social comparison theory is relevant here: people are concerned with doing the "right" thing in social situations and try to manage impressions of themselves so that they appear favorably in the eyes of others. Baron & Roper (1976) reaffirmed the importance of social comparison processes in an experiment using the autokinetic paradigm.

5 Data were also collected from 28 females. Preliminary analyses showed that, while males and females were behaving very similarly in the helping session, females were responding to the ambiguity manipulation in exactly the opposite direction from males. That is, females were more influenced in the 8-second condition. Since it was not possible to collect data from enough females to analyze this sex difference properly, it was decided to delete the females from the analyses reported. Most of the analyses presented were performed using the total sample as well as with males only, and, with the exception of the response to the ambiguity manipulation, the results were very similar.

6 Repeated-measures analyses of the experimenter sex variable in the conformity session revealed that subjects were more influenced in the presence of male experimenters during the influence period, $F(1, 105) =$

6.21, $p < .02$. No interactions between experimenter sex and any of the other independent variables were found. However, the main effect of experimenter sex disappeared during the private acceptance period, $F(1, 105) = 1.11$, ns, and again, no interactions were found. Thus, the change of behavior in male subjects caused by male experimenters was mere compliance and not lasting acceptance of influence.

7 Analyses were also performed using, as the assigned latency, the type of help the subject offered fastest. However, since verbal help was usually offered first, this new variable correlated highly with the presence or absence of verbal help. The helping variable chosen was considered to be a more conservative measure which better captured the nature of the helping situation. As might be expected, however, results for both variables were virtually identical.

8 Various transformations of the helping latencies were considered, in order to reduce the variability caused by assigning latencies of 180 seconds to non-helpers. Latane' and Darley's (1970) reciprocal transformation was rejected because it greatly increased the variance. Log, square root and arcsine transformations were tried, but none of them changed the relative between/within cell variance, thus none had any substantial impact upon the results of the analyses. Given these considerations, and Keppel's (1973) cautions about the use of transformations, raw latencies were retained.

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