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VIDEOTAPE AND THE ATTRIBUTION PROCESS: CHANGING ACTORS' AND OBSERVERS' POINTS OF VIEW

MICHAEL D. STORMS

A DISSERTATION PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL OF YALE UNIVERSITY IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

1971

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ABSTRACT

Kelley (1967) proposed that individuals interpret their own and other peoples' behavior and infer internal, dispositional causes or external, situational causes for that behavior. Jones and Nisbett (1971) posited that attributions may differ for individuals interpreting their own behavior and individuals interpreting others' behavior. Actors tend to attribute their own behavior relatively more to the situation; observers tend to attribute the actor's behavior relatively more to the actor's disposition. The present paper suggests that differences in actors' and observers' visual orientation toward an event may account for attributional differences. Actors may focus more on aspects of the situation and less on their own behavior; consequently, they perceive their behavior as caused by the situation. Observers, on the other hand, focus more on the actor and less on the situation; consequently, they attribute the actor's behavior more to dispositions within him.

An experiment was designed to test the effects of different visual orientations on actors' and observers' attributions. A brief "getting acquainted" conversation between two actors was videotaped from different camera angles. In addition, an observer was assigned to watch each actor. Actors were shown a videotape replay of the conversation recorded either from their original point of view (toward the other actor) or from a new perspective (toward themselves). Likewise, observers viewed a videotape taken from their original point of view (toward their matched actor) or from a new orientation (toward the other actor). Some actors and observers saw no videotape replay. A questionnaire measured subjects' attributions of their own behavior (for actors) or their matched actor's behavior (for observers).

Role and videotape orientation interacted significantly to affect subjects' attributions of the actor's behavior. When subjects saw no videotape or saw a videotape which repeated their original orientations, actors attributed their behavior relatively more to situational causes than did observers. When videotape presented a new orientation to subjects, this pattern was exactly reversed. Self-viewing actors attributed their behavior relatively less to situational causes than did observers. In addition, self-observation may have influenced actors' typical self-image defense mechanisms. Actors who did not see themselves on videotape and who perceived themselves as somewhat less friendly were more likely to attribute their unfriendliness to the situation, but this relationship did not hold for self-viewing actors.

Possible mechanisms by which videotape reorientation affected subjects' attributions are discussed, including: 1) changes in the information made available about the event, 2) changes in the saliency of such information, and 3) changes in subjects' attributional "set." Implications are drawn for the use of videotape in psychotherapy and T-groups. It is suggested that videotape self-confrontation may affect patients in such a way as to lead to adaptive or maladaptive changes in behavior and self-image.

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Acknowledgments

If I make my thanks brief, maybe someone will read them.

Doctor Richard Nisbett began helping me on this thesis four years ago, when we first met. The thoughts are my own, but the ability to think them I owe to him.

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Finally, following the precedent of Daryl Bem, I shall not mention that my wife helped type various rough drafts, tolerated periods of desertion, and allowed me to be a male chauvinist pig for the duration of this thesis.

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In his original article on attribution theory H. H. Kelley (1967) suggests that people are confronted with a basic decision to make about any observed behavior. Was it caused by internal states within the actor, such as his personality and attitudes, or did the behavior result from external causes in the environment, including the situational context and the stimulus properties of the entity toward which the behavior was directed?

The distinction between internally caused and externally caused behavior pervades many topics in social psychology. Dissonance theory (Festinger, 1957) is concerned with whether people see their behavior as externally caused (by social pressure, lack of choice, or high reward) or internally caused (by attitudes). Similarly, Bem's theory of self-inference (1967) pertains to the individual's processing of available information to decide whether his behavior reflects his own attitude or external constraints upon him. Recent work in the area of emotions by Schachter and Singer (1962), Nisbett and Schachter (1966), Storms and Nisbett (1970), and Nisbett and Valins (1971) centers on a similar distinction. When an individual experiences an arousal symptom he will need to attribute it to an appropriate source. If the individual attributes his symptom to an external source (a drug or a tense situation) he is not likely to experience

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any particular emotion. Specific emotional states arise when the symptom is attributed internally (I am sick, scared, nervous). Researchers in the area of leadership and group process (Bion, 1959; and K. Rogers, 1963) have noted that group leaders often perceive their own behavior to be caused by external pressures of the group, while group members perceive the leader's behavior to be caused by his own internal needs.

Kelley suggests that the individual faces the same internal/external decision and must go through the same attributional processes whether he is trying to infer the cause of another person's behavior or of his own behavior. Bem (1967) makes this point more explicitly. His theory of self-inference posits that the individual who is attempting to understand his own behavior acts like an outside observer of himself. He will use the same information and reach the same conclusions in evaluating his own behavior as he would in evaluating anyone else's behavior.

Taking a slightly different point of view, Jones and Nisbett (1971) argue that certain differences do exist in the attributions a person makes about his own behavior and the attributions he makes about another's behavior. These authors propose that when actors look for an explanation of their own behavior they are inclined to give considerable weight to external, situational causes and are thus biased in the direction of making situational attributions. Observers,

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on the other hand, place considerably more emphasis on internal, personal causes of the actor's behavior, and are thus biased in the direction of making dispositional attributions.

Jones and Nisbett cite several studies which give indirect but consistent support for their proposition. Previous studies in which an observer has made judgements about an actor's behavior (Jones, Rock, Shaver, Goethals, and Ward, 1968; Jones and Harris, 1967; and McArthur, 1970a) demonstrate the propensity of observers to see another's behavior in dispositional terms. For example, in the McArthur study subjects evaluated simple, one-sentence descriptions of an event, e.g., "George translates the sentence incorrectly," "While dancing, Ralph trips over Joan's feet." Subjects were asked why the event probably occurred: was it something about the person which caused him to behave that way; something about the stimulus (the sentence, Joan's dancing); or something about the situation in which the event occurred? McArthur's observers very infrequently used either of the last two categories to explain the action. Stimulus and situational reasons combined amounted to only 4% of the total number of reasons given. By far the greatest proportion of reasons given were person attributions--44% in all. Apparently observers were inclined to make dispositional attributions.

Other studies have indicated that actors who evaluate their own behavior are biased toward situational attributions (Jones,

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Rock, Shaver, Goethals, and Ward, 1968; Nisbett and Caputo, 1971; Nisbett, Legant, and Marecek, 1971; and McArthur, 1970b). For example, McArthur induced one set of subjects to perform a certain act (agreeing to participate in a survey), and gave a second set of subjects written accounts of the first subjects' behaviors and the surrounding circumstances. As expected, subjects who agreed to take part in the survey tended to attribute their compliance to the importance of the survey, and not to their own disposition toward surveys. Observers exactly reversed this pattern, giving more emphasis to the volunteering subjects' personal inclinations to participate.

Given this evidence in support of their proposition, Jones and Nisbett discuss a variety of factors which might lead to attributional differences between actors and observers. They focus on 1) differences in the information about the event, behavior and context which is <u>available</u> to actors and observers and 2) differences in how information will be <u>processed</u> by actors and observers. Actors may have private information about some aspects of the event, including their own feelings and the historical context in which the event transpires; while observers may have more complete information about the behavior itself. Furthermore, in the interests of controlling events and predicting the future, actors may attend more to situational variables in an

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event and observers may attend more to variations in the actor's behavior.

The present study examines a fundamental difference between actors and observers which may lead, in turn, to some of the information differences postulated by Jones and Nisbett. Perhaps the most obvious difference between actors and observers is that they have, quite literally, different points of view. Actors cannot see themselves act; physically they cannot observe much of their own behavior. They may watch the antecedents of their own behavior, or its consequences, or both. But they do not normally view the behavior itself. In addition to the physical difficulty of watching oneself, there are temporal restrictions which contribute to a lack of self-observation. There may not be enough time or mental capacity to contemplate past behavior, monitor present behavior and plan future behavior all at once. Finally, there are motivational reasons for avoiding an excess of self-observation. In the interests of acting unself-consciously and maintaining control over the immediate events taking place, the actor may learn that it is dysfunctional to be overly concerned with his own present and past behavior. Instead, it is reasonable to assume that most actors will focus on the situation in which they find themselves. They will look at, attend to, and think about various changing aspects of the environment in which and to which they must respond.

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While the actor is watching the situation in which he finds himself, the observer is probably watching the actor. In psychology experiments, observers are told to watch the actor. In real life, observers probably watch actors anyway. We are all "people-watchers". Other people, especially those who are engaged in some overt behavior, are surely the most interesting and important things to observe. Consequently, observers are often visually oriented toward the actor. It is true that an observer can take his eyes off the actor and view other aspects of the situation, but he probably sees less of the situation than the actor does. As with actors, the observer's scope is also limited by time. Observers cannot simultaneously watch the actor and observe as much of the situation as the actor can. Furthermore, observers probably find it more efficient in terms of controlling and predicting the on-going event to concentrate on the actor's behavior rather than on the actor's situation. Finally, the actor is, after all, part of the observer's situation. For the same reasons that an actor focuses on his own situation, the observer will focus on the behavior of the actor, which is part of his (the observer's) situation.

Thus we postulate that there is a simple difference between actors and observers. Actors watch their environment (which includes the behavior of other people) more than they watch their own behavior. Observers watch the behavior of the actor more than

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they watch the actor's situation.

Assuming that one's attributions are largely influenced by orientation and attention, it should be possible to change dramatically the way actors and observers interpret a behavior. In the simplest case it should be possible, by reorienting their attention, to erase actors' and observers' attributional biases, indeed to bring them into perfect agreement about the cause of a behavior. In the extreme case, reorientation may produce reversed biases. If his own behavior were made especially salient to the actor, he might make overly dispositional inferences about his behavior. If the observer's attention were forcefully directed toward environmental factors, he might come to over-attribute the actor's behavior to situational causes.

Thus, the question to be answered by this research is whether actors' and observers' attributions can be significantly influenced, perhaps even reversed, by changing their visual orientation toward an event. The implications of such a question may go beyond immediate theoretical concerns. Discrepancies between actors' and observers' perceptions and interpretations of behavior are of paramount concern to therapists, group relations consultants, and T-group trainers. Often such practitioners must attempt to bridge the gap between actor and observer, patient and therapist, individual and group.

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A test of this hypothesis requires some means of changing actors' and observers' orientations. Fortunately, modern technology provides a simple and interesting means to accomplish this change--namely the use of videotape. Videotapes of an event, taken from various camera angles, can be replayed to actors and observers to redirect their attention to other aspects of the event. For our purposes, two cases are of particular interest. The first case is when actors are shown a tape of their own behavior and when observers are shown a tape of some key aspect of the actor's situation. The present hypothesis predicts that such reorientation will affect actors and observers in such a way as to weaken or even reverse their original attributional leanings. Actors who see themselves should become more dispositional in attributing their own behavior. Observers who see another aspect of the actor's situation should become more situational in attributing the actor's behavior. In addition, we are interested in the case where videotape is used, not to reorient actors and observers, but to repeat and reemphasize their original orientations. Thus when actors and observers are presented with a videotape taken from the same viewpoint they had as the event actually transpired, we might expect an exaggeration of their original biases. Actors should become even more situationally biased and observers even more dispositionally biased.

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METHOD

Overview

The hypothesis was tested in an experiment that featured a simple interpersonal event, namely a brief "getting acquainted" conversation between two strangers (Actors). In addition, two other subjects (Observers) were told to watch the conversation but not to participate in it.

Videotape replays of the conversation provided the experimental manipulation. In one set of conditions, Actors and Observers saw a videotape from essentially the same orientation as they had had in "real life." Actors saw a videotape replay of the other participant in the conversation (Actor--Same Orientation) and Observers saw a videotape of the same Actor they had been observing and about whom they would later answer questions (Observer--Same Orientation). In another set of conditions, Actors and Observers received an entirely new orientation on videotape. Actors saw a videotape of themselves in the conversation (Actor-- New Orientation condition); and Observers saw a videotape of the other participant with whom their target Actor had been conversing (Observer--New Orientation conditions). These four cells provide the necessary data for assessing the effects of videotape reorientation on Actors' and Observers' attributions. In addition, a set of Actors and Observers were

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run in a baseline condition with no videotape replay.

Undergraduate male subjects volunteered for an experiment on "Interpersonal Dynamics: Getting Acquainted." Four unacquainted subjects arrived for each experimental session and were told that to study the interpersonal dynamics of getting acquainted two of them would have a short getting-acquainted conversation with each other. The other two subjects would be non-participating observers of the conversation. Subjects drew cards to determine their roles in the conversation: first Actor (A-1), second Actor (A-2), first Observer (O-1), and second Observer (O-2). Each Observer was instructed to pay particularly close attention to his matched Actor in the conversation. Thus O-1 was assigned to A-1 and O-2 was assigned to A-2.

Subjects were then escorted to the experimental room and seated according to the chart in Figure 1. A-1 and A-2 sat directly across from each other for the conversation. Each Observer sat at the other end of the table, diagonally across from his matched Actor.

At this point the two cameras, one facing each Actor, were turned on and adjusted. Then the two Actors began an unstructured, five minute conversation with each other, while the two Observers watched silently. After the conversation, the procedure varied according to whether it was a control session or an experimental

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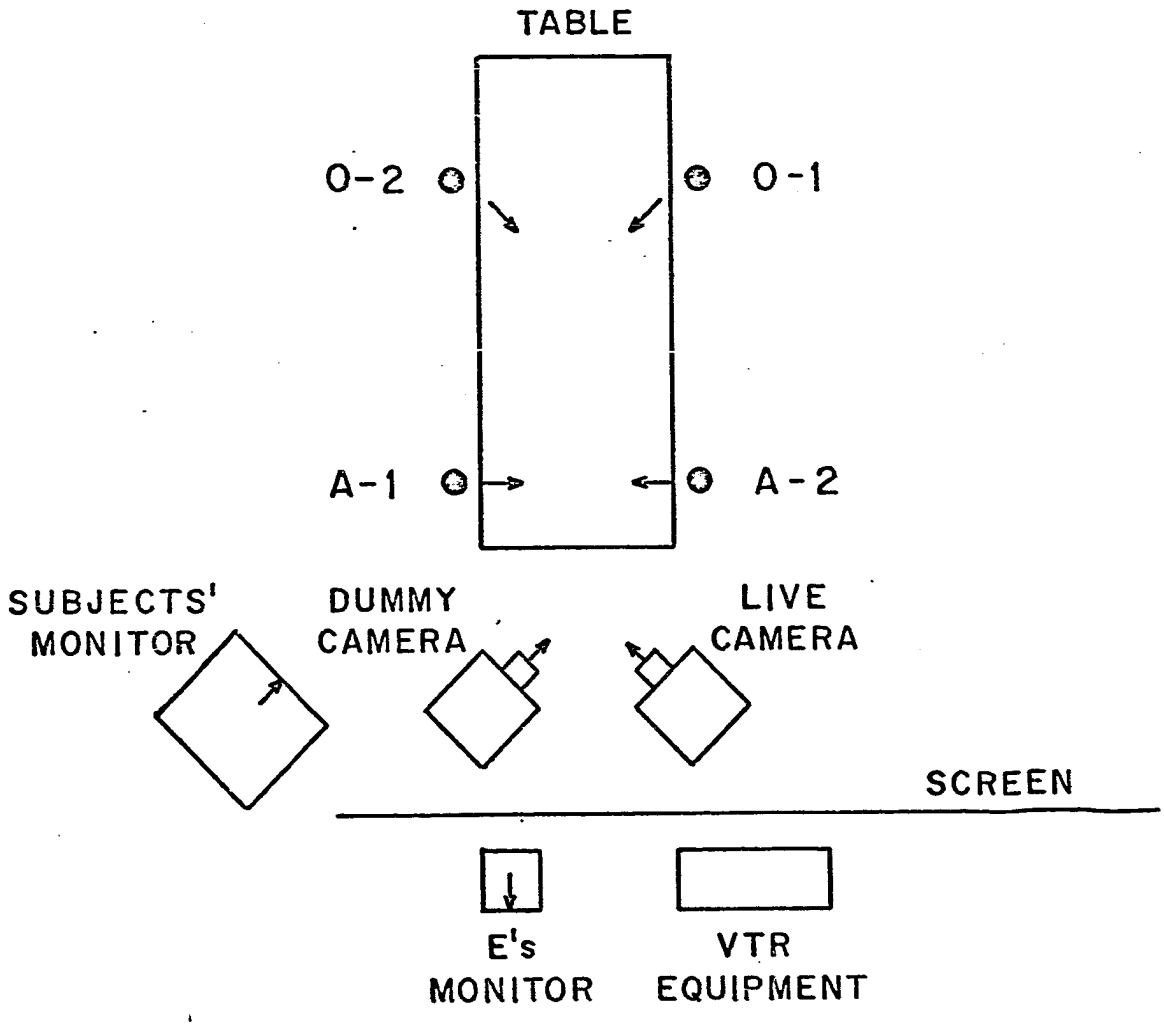

Figure 1. Set-up of Experimental Room

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session. If it was a control session, subjects were not shown a videotape of the conversation, on the pretext that the tape machine had broken down. If the session was experimental, another technical excuse was given that only one tape could be shown. Subjects in experimental sessions were then shown the one good tape, which was always a tape of A-1. Then all subjects were given a questionnaire in which each Actor answered questions about himself and his own behavior, and each Observer answered questions about the behavior of his matched Actor.

Four experimental and two control cells were generated by this design. In experimental sessions, subjects differed in two ways: their role in the conversation (Actor or Observer) and the orientation provided by the videotape (Same or New). All subjects saw a tape of A-1. Thus one Actor, A-2, saw a tape of essentially the same thing he had seen in "real life" (A-1) and is the Actor-Same Orientation subject. The other Actor, A-1, viewed a tape of himself and is the Actor-New Orientation subject. Similarly, one Observer, O-1, saw a tape of the same Actor he had been observing in the conversation (A-1) and is the Observer-Same Orientation subject. The other Observer, O-2, saw a tape of the participant whom he had not been observing previously (A-1) and is the Observer-New Orientation subject. Thus each experimental session yielded one subject in each of the four experimental cells. It should be noted that each control,

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no-videotape session simply produced two Actor-Control subjects and two Observer-Control subjects.

Subjects

One hundred twenty undergraduate males at Yale University participated in 30 groups of four. Subjects came from a pool of students who were required to participate in an experiment of their choice to fulfill an introductory psychology course requirement. Subjects volunteered for this particular study by signing up on a posted sheet which specified that only males were being used in the study and that people who signed up for the same session should not be previously acquainted. To compensate for incomplete volunteering and failure to show up at the experiment, the sign up sheet provided blanks for five people per session.

Due to the unpredictability of sign-up and show-up rates, and due to the fact that an occassional female volunteer would show up in spite of the instructions for males only, some sessions were cancelled and some others were conducted but are not included in the study. When less than four volunteers arrived for a session, the session was cancelled and subjects were asked to sign-up again for a later session. When a full complement of five people showed up, which was rare, the session was conducted but was not included in the study. When a female volunteer showed up, the session was conducted anyway but was not included in the study.

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Thus, only thirty "perfect" sessions are included in this study. Upon arrival, subjects were asked if any of them already knew each other, but there were apparently no violations of the "strangers only" rule.

Procedure

Subjects arrived at a waiting room where a sign instructed them to "avoid interacting with each other until the experiment begins, so that you will remain strangers to each other." When all subjects had arrived, the experimenter entered and explained the purpose of the study. "This is a study in an area of social psychology called 'interpersonal dynamics.' More specifically, I'm interested in what I call 'getting acquainted'--that is what happens when two strangers meet for the first time and initiate their first conversation."[1] E then explained that "we frequently find ourselves 'getting acquainted' with a new person and almost any kind of relationship between two people has to start with an initial, first conversation. And that's what we're interested in studying here."

Subjects were then given more details about what would happen in the experiment. "Two of you in this study will be having a short, first conversation with each other. (These two Actor subjects were referred to in the actual script as "participants.") In

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[1] A complete script is included in Appendix A.

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addition, this study calls for two observers." E explained that having involved, participating subjects and uninvolved, observing subjects would provide more objective data for the experiment. Subjects then drew from four cards labeled "A-1," "A-2," "O-1," and "O-2." E explained each subject's role in the experiment. "A-1 and A-2, you will be the two participants and you will be having the conversation with each other. O-1, you will be one of the observers. You will see and hear the whole conversation, of course, but you should pay particularly close attention to A-1; he is your matched participant. O-2, you are the other observer. Again, you will see and hear the whole conversation, but you should pay particularly close attention to your matched participant, A-2." These instructions were designed to assign each Observer to his matched Actor, about whom he would later answer questions, while at the same time making it clear that he would be able to watch any part of the conversation.

E mentioned the conversation once again, informing the Actors that it would last about five minutes and that they could talk about anything they wished. Observers were told to observe the conversation silently.

E then mentioned: "There is one thing I would like to add to the procedure today. I've gotten hold of some videotape equipment and I will be taping your conversation. My thought was that it might be useful to you in answering the questionnaires to see the conversation replayed on tape."

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Subjects were then escorted from the waiting room into the experimental room where they were seated as shown in Figure 1. Actors sat at one end of the table, across from each other, with one camera focused on each. Observers sat at the other end of the table, diagonally across from and facing their matched Actors. E reiterated that the conversation would last about five minutes and that the Actors could talk about anything they wished, perhaps starting with their names and where they live.

At this point E took a few seconds to set up the equipment. He aimed both cameras, stepping behind a screen to check the image on his monitor. In fact only one camera was "live," the one facing A-1, and E was faking when he aimed the dummy camera facing A-2. E remained behind the screen and indicated to the Actors to begin their conversation. After five minutes, he signalled to the participants to stop talking. "Give me a few seconds to rewind the tapes. Please don't talk to each other for now."

E rewound the one tape and set it up for replay. Then he consulted a random number table to determine whether the session would be a control session, in which case subjects would not see the tape, or an experimental session. If the table indicated an experimental session, E continued: "I'm afraid only one camera was working very well and the other one is just too poor to see anything. So we'll only be able to see one of you on the videotape; but we'll hear both of you on the audio track,

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so it's not a total loss. As I replay the good tape, look here at the monitor. Videotape will give us a good chance to have a review of the event before answering questions about it."

If the random number table indicated a control session, E said the following instead: "I'm afraid this is lousy equipment. It just didn't take a good enough picture to be worth our while looking at it. So we'll just have to skip the tape and go on to the questionnaire."

At this point for control subjects, and after the videotape replay for experimental subjects, E introduced the questionnaire, stressing that it was confidential and that subjects would not see each other's responses. "And to give you a little more room and privacy to answer your questionnaires, let me take two of you to the next room." E used another random number table to select which two subjects would be excused to another room to answer their questionnaires.

When subjects completed the questions, they were brought together again for debriefing. Scheduling of the sessions permitted 10 to 30 minutes for the debrief, depending on how long subjects wished to continue the discussion. One of the important topics discussed at this time was experimental deception. E was particularly concerned with whether subjects had been suspicious and whether they resented the relatively mild deception about the dummy camera. While some subjects indicated that they

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had been generally suspicious about the experiment at first, simply because it was a social psychology experiment, no subject indicated suspicion that the videotape had been a deliberate experimental manipulation. Subjects uniformly expressed their pleasure that the experiment had not been basically deceptive and that the one hoax was necessary and inconsequential. At the end of debriefing, subjects were sworn to secrecy and given experimental participation credit slips for their course requirement.

Measures

Subjects' attributions were assessed by a questionnaire at the end of the experiment.[2] The introductory paragraph of the questionnaire informed the Actor-subjects that they would be answering mostly questions about themselves, and informed Observer-subjects that their questions would be mostly about their matched Actor. The questionnaire began with a series of open-ended questions about the Actors' behavior in the conversation. These questions were designed to lend credence to the overall purpose of the experiment, and are not specifically relevant to any of the attribution hypotheses.

They key dependent measure of attributions came next in the questionnaire, and was preceded by a sheet of instructions. These instructions informed subjects that on the next four pages of the questionnaire they would be asked to describe their own

[2] A complete version of the questionnaire is in Appendix B.

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(their matched Actor's) behavior along four standard dimensions: friendliness, talktiveness, nervousness, and dominance. Then, for each of the four behaviors, subjects would be asked to indicate how much influence they thought the following two factors had in causing that behavior:

"A) Personal characteristics about yourself (your matched participant): How important were your (his) personality, traits, character, personal style, attitudes, mood and so on in causing you (him) to behave the way you (he) did?

"B) Characteristics of the situation: How important were such factors as being in an experiment, the 'getting acquainted' situation, the topic of conversation, the way the other participant behaved and so on in causing you (him) to behave the way you (he) did?"

On each of the next four pages, three questions were presented. The first was a question about the perceived level of behavior, such as "To what extent did you (your matched participant) behave in a friendly, warm manner?" The question was followed by a 9-point scale labeled "extremely friendly" to "extremely unfriendly." The perceived level of behavior question was followed by two attribution questions: "How important were personal characteristics about you (your matched participant) in causing you (him) to behave that way," and "How important were characteristics of the situation in causing you (him) to behave that way?" Each of these questions was followed by a 9-point scale labeled "extremely important" to "extremely unimportant."

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These last two questions, repeated over the four behavioral dimensions, provide the principal and most direct measure of subjects' attributions. Since the hypothesis is concerned with the relative strength of dispositional versus situational attributions, the appropriate measure is the difference between perceived importance of personal characteristics and perceived importance of situational characteristics in causing the Actor's behavior. This difference score will be referred to as the D-S index.[3] A higher value on this index indicates that a subject's attributions are relatively more dispositional and less situational. It is important to note this dual relationship in interpreting the result of this measure. When the present paper describes an effect as "relatively more dispositional" it is equally valid to say "relatively less situational." Since the present hypothesis is not concerned with differences between behavioral dimensions and makes no differential predictions from one behavior to another, the D-S index is summed over all four behaviors used in the study.

A second, less direct measure of subjects' attributions

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[3]Another way of expressing this variable was also considered: the ratio D-S/D+S, or the difference between dispositional and situational attributions divided by their sum. This ratio measure yields the same results and levels of significance on all statistical tests in this paper, and the ratio measure correlates highly with the D-S measure (r=.989). Thus, it was decided to report only the simpler D-S index.

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appeared next in the questionnaire. Earlier subjects reported their perceptions of the Actors' level of behavior in the conversation on each of the four dimensions. At this point, they were asked to report their estimates of the Actor's level of behavior in general on each dimension. For example: "How friendly a person are you (is your matched participant) in general?" Responses were made on a 9-point scale ranging from "very friendly" to "very unfriendly." In effect, this question asked subjects to make a dispositional attribution about the Actor's behavior, what he is like in general. If a subject perceived that the Actor's behavior in the conversation was due to his disposition, then the subject would likely have predicted that the Actor behaves the same way in general. Thus dispositional attributions would lead to a low discrepancy between the subject's perception of the Actors' level of behavior in the conversation and his estimate of the Actor's level of behavior in general. On the other hand, if the subject thought that the Actor's behavior was caused by the situation, he would more likely have reported that the Actor behaves differently in general. Thus, situational attributions would lead to greater discrepancy between subjects' perceptions of the Actor's present and general level of behavior. The simple measure of this discrepancy is the absolute value of the difference between the present level-of-behavior scores and the general level-of-behavior

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scores, again summed over all four behaviors. This measure will be referred to as the PB-GB index. The higher the value of this discrepancy index, the more a subject made a situational (or the less he made a dispositional) attribution.

In addition to the two key measures of attribution, the questionnaire included several other items of potential interest. One series of questions asked subjects to estimate the similarity of the Actor's present behavior to: 1) his behavior in other social situations, 2) other people's behavior in getting acquainted situations and 3) the behavior of other people who interact with the other participant. These questions were followed by 9-point scales ranging from "very similar" to "very different." On another series of questions, subjects were asked how much they felt they had learned during the course of the experiment about 1) getting acquainted situations, 2) themselves (or their matched Actor), and 3) the other participant. The questionnaire concluded with several miscellaneous items. Observers only were asked, on a 9-point scale, how similar to or different from the Actor they would have behaved if they had been a participant. All subjects were asked, on 9-point scales, which participant had talked the most; how much they enjoyed the conversation, the videotape (except for control subjects), and the questionnaire; whether they would like to change any aspect of their behavior in getting-acquainted situations, and what would they like to change; and whether they would like to make any comments about the experiment.

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Unfortunately, cost forbade keeping the actual videotapes of the conversations; however, supplementary audio tapes were made in order to allow for the possibility of content analysis at some future date.

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RESULTS

Dispositional vs. Situational Attributions for Behavior

This study was designed to test the hypothesis that Actors' and Observers' visual orientation toward an event affects their attributions of the Actor's behavior. It was proposed that Actors characteristically focus on and consequently attribute causality to aspects of the situation, while Observers focus on and attribute causality to qualities of the Actor. If Actors' and Observers' visual orientations are modified, with videotape, their attributions should change accordingly. The anticipation was that Actors who saw themselves on videotape would become relatively less situational (or more dispositional) in attributing their own behavior, while Observers who saw a videotape of the other participant with whom the Actor was conversing would become relatively more situational (or less dispositional) in their attributions of the Actor's behavior. Since an opposite effect of videotape reorientation is predicted for Actors and Observers, the hypothesis is properly tested by the interaction between role (Actor or Observer) and videotape orientation (Same Orientation or New Orientation).

The dispositional attribution scores, situational attribution scores, and combined D-S index, summed over all four behaviors, are presented in Table 1. The key dependent measure, the D-S index,

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Table 1

Dispositional, Situational, and Dispositional-minus-Situational Attribution Scores Totaled Over All Four Behaviors

	Same Orientation	Control	New Orientation
Actors' Attributions of own behavior			
Dispositional	26.10	27.35	27.50
Situational	25.95	25.10	20.70
Dispositional-Situational	.15[a]	2.25[ab]	6.80[c]
Observers' Attributions of matched Actor's behavior			
Dispositional	27.10	27.30	25.75
Situational	22.20	22.50	24.15
Dispositional-Situational	4.90[bc]	4.80[bc]	1.60[ab]

Note: -- D-S means not sharing the same superscript are significantly different at the .05 level or beyond by Newman-Keuls tests.

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reflects the relative strength of dispositional and situational attributions; a higher value on this index indicates relatively more dispositional (or less situational) attributing. The relevant analysis of variance on the D-S index is shown in Table 1-I, Appendix D. Neither the main effect for role nor the main effect for videotape orientation was significant. The predicted interaction between role and videotape orientation was obtained at beyond the .001 level of confidence ($F = 9.72$, $df = 2/114$, $p < .001$). The interaction reflects a complete reversal of the relative perspectives of actor and observer in the New Orientation condition. In the Same Orientation condition and in the Control condition, Actors' attributions were more situational than Observers' ($p < .05$, $p < .12$, respectively).[4] New Orientation Actors, in contrast, were relatively more dispositional than New Orientation Observers ($p < .05$).

Examining the simple dispositional and situational scores, also presented in Table 1, it is apparent that reorientation had a stronger influence on subjects' evaluation of situational factors than on their evaluation of dispositional factors. The array of

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[4]These comparisons, and all two cell comparisons in the present study, are based on the $q(r,f)$ statistic from the Newman-Keuls procedure for testing differences among several means (See Winer, 1962). The parameter r equals the number of steps between ordered means (2 to 6), f equals the MS within cells from the analysis of variance (114), and n equals 20 per cell. The Newman-Keuls is a more stringent test than the usual two-tailed t test.

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means for attributions to dispositional causes was in the direction of the predicted interaction, with videotape New Orientation increasing the dispositional attributions of Actors (26.10 to 27.50) and decreasing the dispositional attributions of Observers (27.10 to 25.75). Nevertheless, as the analysis of variance in Table 1-II, Appendix D indicates, the interaction did not reach significance ($F = 1.38$, $df = 2/114$, ns.). The situational attribution scores showed the expected reverse pattern; Actors' attributions were less situational after New Orientation (25.95 to 20.70) and Observers' attributions were more situational after New Orientation (22.20 to 24.15). This interaction, shown in Table 1-III, Appendix D, did reach significance ($F = 5.78$, $df = 2/114$, $p < .005$).

The hypothesis is thus strongly supported. Visual orientation has a powerful influence on the attributions of actors and observers. Indeed, the data in Table 1 suggest the strongest possible conclusion: under some circumstances actual role as actor or observer is unimportant and visual orientation is totally determinative of attributions.

Two other aspects of the data in Table 1 are noteworthy. 1) Repetition of the same information had little effect, as measured by the D-S index, on either Actors or Observers. Actors became only slightly and nonsignificantly more situational after viewing the other participant again and Observers became

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only slightly and nonsignificantly more dispositional after viewing the Actor again. 2) The difference between Actors and Observers in the Control condition was relatively small, falling short of statistical significance.

The fact that repeated Same Orientation had little effect on subjects' attributions suggests that, at least under the present circumstances, the mere addition of time to review the event, as provided by videotape, did not affect subjects' perceptions of the event. Subjects appear to have absorbed all the relevant data about the event during its real-life occurrence. Of course, one would not necessarily expect this to be true of some events. If the episode were more complex or of longer duration subjects could easily miss important information in vivo. A videotape replay would fill in these informational gaps and could, quite possibly, produce different attributions.

The fact that the difference between Actors and Observers in the Control cells failed to attain statistical significance is somewhat more puzzling. On the basis of the Jones and Nisbett hypothesis one would expect Actors to be relatively more dispositional than Observers in that condition. The failure of Actors and Observers in the Control condition to differ significantly may have been due, in part, to the selection of behaviors used in the questionnaire. The D-S index was derived from the sum of the individual D-S scores across all four behaviors (friendliness,

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nervousness, talkativeness, and dominance). However, dominance contributed little to the experimental effects.[5] Comments by subjects during the debriefing suggest a possible reason for the failure of dominance to contribute. Subjects complained that dominance was a difficult dimension on which to judge people in the context of a simple, five minute getting-acquainted conversation. While friendliness, talkativeness, and nervousness are dimensions with concrete behavioral counterparts (such as smiling, talking, and fidgeting), dominance is a more abstract dimension and requires a higher order of inference.

When the dominance question is excluded from the analysis, the test of the Jones and Nisbett hypothesis is strengthened. Actor-Control subjects were significantly more dispositional than Observer-Control subjects across the remaining three dimensions (The means become .95 for Actors versus 3.60 for Observers, $p < .05$). In addition, the interaction of role and videotape orientation is also strengthened by this analysis (See Table 1-IV, Appendix D; $F = 13.89$, $df = 2/114$, $p < .001$).

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[5] Considering each behavioral dimension separately, the interaction between role and videotape orientation was significant for talkativeness ($F = 4.76$, $df = 2/114$, $p < .025$), significant for nervousness ($F = 4.50$, $df = 2/114$, $p < .025$), and significant for friendliness ($F = 3.86$, $df = 2/114$, $p < .025$) but was trivial for dominance ($F < 1$). The comparison between Actors and Observers in the Control cells was in the correct direction but not significant for friendliness, talkativeness, and nervousness, and was actually nonsignificantly reversed for dominance.

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Self-Viewing Actors

One group of subjects (Actors-New Orientation) were unique in the present study in that they viewed themselves on videotape. Because of the anomaly of such a situation and because videotape self-confrontation is becoming a widespread therapeutic adjunct, this cell deserves closer attention.

Subjects who saw their own behavior on videotape had a higher mean for dispositional attributions and a lower mean for situational attributions than any other group of subjects. These scores suggest that self-viewing Actors may have been over-dispositional (or under-situational) in attributing their own behavior. That is, videotape may have reoriented these Actors so much that they perceived less situational explanation for their behavior than did others who viewed the behavior. This possibility is partially supported by the comparison between Actors and Observers in the New Orientation cells. These Actors saw both points of view -- the other participant in real life and themselves on videotape; while these Observers also saw both views -- the Actor in real life and the other participant on videotape. Under these conditions, Actors were significantly less situational on the D-S index than were Observers. A more stringent test of the over-reaction notion is provided by comparing self-viewing Actors with Observers who saw the Actor both times, in real life and on tape (Observers-Same Orientation). Here the mean for self-

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viewing Actors (6.80) was still relatively less situational than the mean for Observers who saw the Actor twice (4.90), but the comparison was not significant. These results weakly suggest that Actors may have become "under-situational" about their own behavior after viewing it on videotape.

The notion that self-viewing Actors may under-attribute to the situation has important implications with regard to such motivational concepts as defense mechanisms and self-esteem maintenance. Normally, one would expect an individual to attribute his own uncomplimentary behavior defensively, i.e. to situational causes rather than to himself. This appears to have been the case for non-selfviewing Actors. For these Actors who did not see themselves on tape (Actor-Same Orientation and Actor-Control subjects combined), a significant relationship was found between how friendly they perceived themselves to have acted and how they attributed that behavior (r between perceived friendliness and D-S index = .32, $p < .05$). Non-self viewing Actors appear to have attributed unfriendly behavior defensively, that is, more to situational causes. This relationship did not hold, however, for self-viewing Actors ($r = -.07$, ns.). Actors who saw themselves behaving in a relatively unfriendly way on videotape were not more likely to attribute that behavior to the situation. This result suggests that self-observation may have vitiated subjects' normal means of defending self-image.

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Perceived Level of Behavior and

Perceived Discrepancy from General behavior

In addition to the two attribution questions, subjects also answered questions about the perceived level of behavior on each dimension. A characteristic of previous studies in this area is their failure to measure subjects' perceptions of the behavior they are to attribute. Instead, past experiments have typically created a specific, standardized behavior for subjects to attribute. The design of this experiment did not furnish all subjects with the same behavior, due to the unstructured nature of the getting-acquainted conversations. This flexibility was desirable in that it provided a more general test of the attribution hypotheses over several, naturally-occurring behaviors. But it also allowed for the possibility that perceptions of the perceived level of behavior could differ among experimental conditions and could account for the different attributions of those behaviors. This did not appear to have been the case, however. There are two ways of calculating perceived level of behavior: 1) by taking the direct value from the 9-point scale for each level-of-behavior response, and 2) since the scales were bipolar (for example, 9 = very friendly to 1 = very unfriendly), by taking the deviation of the subject's response from the midpoint of the scale (5). Neither of these measures yielded significant comparisons between any cells in the experiment, either for each behavior considered separately or for

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all four behaviors totaled. (See Table 5, Appendix C.) Furthermore, the overall correlations between the D-S measure of attributions and the two measures of perceived level of behavior were trivial and nonsignificant (r = -.049 for the direct score, r = -.021 for the deviation-from-midpoint score). Thus it is apparent that differences in perceived level of behavior could not account for the attribution differences.[6]

Since there were no significant differences in perceived level of behavior it was possible to use the second measure of subjects' attributions, the PB-GB discrepancy scores. This index reflected the difference in subjects' perceptions of the Actor's present behavior (in the conversation) and the Actor's general behavior. A small discrepancy would indicate that a subject expected the Actor's present behavior to generalize and was thus making a dispositional attribution. A greater discrepancy would indicate a situational attribution of the Actor's present behavior and no expectation that that behavior would generalize beyond the laboratory situation. The PB-GB index was computed by taking the absolute value of the difference between the perceived present level of behavior and the estimated

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[6]It is interesting to note the overall means on these dimensions. Subjects generally perceived the Actor to be near the midpoint on nervousness (5.7), talkativeness (5.4), and dominance (5.2) and higher on friendliness (6.8). The results suggest a fairly casual, non-stressful, and somewhat friendly atmosphere.

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general level of behavior, calculated for each subject on each behavior and then summed over all four behaviors.

The results of the PB-GB discrepancy measure, presented in Table 2, corroborated the findings on the D-S measure of attributions. The effects of videotape reorientation, as tested in the interaction between role and videotape orientation, reached significance at $p < .05$ (see Table 5, Appendix D; $F = 3.38$, $df = 2/114$).[7] Again, neither the main effect for role nor the main effect for orientation was significant. Although the direction of differences between Actors and Observers in the various conditions was as expected, none of the individual comparisons reached significance on the PB-GB measure. It appears that the results for the PB-GB measure followed the same pattern as, but were generally weaker than, the results for the D-S measure. Furthermore, the two measures were significantly correlated (overall $r = .361$, $p < .01$).

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[7]Examination of the PB-GB scores on each behavior considered separately (Table 6, Appendix C) yielded the following. The interaction test of the reorientation hypothesis was significant for friendliness ($F = 10.70$, $df = 2/114$), $p < .001$), and nervousness ($F = 5.09$, $df = 2/114$, $p < .01$), and the means were correctly arrayed but without a significant interaction on the remaining two dimensions. The comparison of Actors and Observers in the control, no videotape cells was in the expected direction but nonsignificant on two dimensions (nervousness and talkativeness), and was nonsignificantly reversed on the remaining two.

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Table 2

Present Behavior-minus-General Behavior Discrepancy Scores Summed Over All Four Behaviors

	Same Orientation	Control	New Orientation
Actors	7.15	5.00	4.25
Observers	5.45	4.90	5.90

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Other Measures

Of the remaining measures taken, none were particularly relevant to the present hypotheses. One set of questions, however, should be mentioned because of their similarity to items used in a previous attribution study by McArthur (1970b). Subjects were asked to gauge the similarity of the Actor's behavior in the conversation to his behavior in other social settings, other people's behavior in getting-acquainted settings, and the behavior of other people who interact with the other participant. These results are presented in Table 7, Appendix C. It was conceivable that an appropriate combination of these items would produce results similar to those on the D-S measure and the PB-GB measure. That was not the case, however. No significant trends were found in these data, either consistent or inconsistent with the previous findings.

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DISCUSSION

The present study demonstrates that visual orientation has a powerful influence on the inferences made by actors and observers about the causes of the actor's behavior. Videotape orientation interacted with subjects' role to produce different attributional patterns for actors and observers. When videotape was not presented and subjects were left to assume their own orientations, or when videotape reproduced subjects' original orientations, actors attributed their behavior relatively more to situational causes than did observers. This finding supports the Jones and Nisbett hypothesis that actors' attributions are typically more situational than observers'. But under conditions of reorientation, when subjects saw a new point of view on videotape, the attributional differences between actors and observers were exactly reversed. Reoriented, self-viewing actors attributed their behaviors relatively less to situational causes than did observers. This effect was obtained on two very different measures of attribution, across a variety of behavioral dimensions in an unstructured situation.

Mechanisms of Videotape Reorientation

Two important issues arise concerning the possible mechanisms by which video-orientation affected attributions. The first issue, one crucial to any laboratory, social psychology experiment, concerns

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experimenter demand characteristics. Such demand characteristics could have influenced the results of this experiment if subjects had thought the experimenter wanted to manipulate their attributions by replaying only one videotape. Several safeguards were designed into the present study to defend against this possibility. Since each session comprised one subject from each of the four experimental cells, E would have had to communicate different "experimenter demands" to each of the four different subjects. Thus it is unlikely that E could have communicated the hypotheses to subjects directly by his nonverbal behavior. The possibility of communicating the hypotheses indirectly, by showing only one videotape, was avoided by leading subjects to believe that the videotape was not an essential part of the experiment and that E had wanted to show both videotapes, but could not due to circumstances beyond his control. During debriefing, subjects were questioned on their reactions to this hoax; they reported no suspicion that the videotape breakdown had been intentional. Thus it appears that the deception was successful in leading subjects to believe that the videotape manipulation was unimportant and unintentional. Finally, if subjects had been responding to the attribution questions out of desire to support the experimenter's hypotheses, it is unlikely they could have consciously produced the results of the indirect PB-GB measure. This index was derived from the absolute value of the difference

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between the four level-of-behavior questions and the four general behavior questions. These questions were widely separated in the questionnaire and subjects would have had to perform a rather elaborate calculus to produce these results consciously. Thus, it does not seem likely that the re-orientation effects can be accounted for by experimenter demand characteristics.

The second issue involves the possible mechanisms by which videotape caused the predicted attributions. This study was designed to demonstrate that a global manipulation, visual orientation, affects the relationship between actors' and observers' attributions of the actor's behavior. The study was not designed to separate out the many possible mechanisms by which this occurs. However, some informed speculation is possible.

Jones and Nisbett propose several informational factors that contribute to attributional differences between actors and observers, including both differences in the information available about an event and differences in how that information is processed. These two categories are not mutually exclusive and videotape orientation may have affected aspects of both information availability and information processing. When actors or observers saw a videotape of an event from a different point of view they may have received at least some totally new information. The actor may have realized, for the first time, some new aspects of his own

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behavior; the observer may have seen new aspects of the situation or of the other participant. These new facts could have contributed to changes in subjects' inferences about the cause of behavior. Second, the salience of already available or partially available information may have changed for reoriented subjects. Changes in the salience of information have been shown to affect people's perceptions of the reasons for their behavior. For example, Kiesler, Nisbett, and Zanna (1969) found that subjects tended to adopt as explanations of their own behaviors motives that were made salient by a stooge. Similarly, subjects in the present study might have formulated their attributions about the actor's behavior on the basis of potential causes which had just been made salient by the videotape. Finally, videotape reorientation may have produced new response sets for subjects. Actors who viewed themselves on tape may have been put into a "self-discovery" frame of mind and thus led to think about their own personality as revealed in their behavior. Similarly, observers who saw a videotape from the actor's point of view may have developed an "empathic" set, imagining themselves to be in the actor's own shoes.

It is also important to consider in more detail the exact nature of the attributional changes evoked by videotape. Changes on the key dependent variable, the D-S index, were accounted for mostly by changed evaluations of situational causes. Although the means for both dispositional and situational attributions were

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in the expected direction, significant differences were found only on the latter dimension. Assuming that these results are an accurate reflection of subjects' thinking, they would imply that videotape served mainly to enhance or to detract from the perceived influence of the situation. Actors assigned a great deal of causality to the situation unless videotape forced them to look away from the situation and toward their own behavior. Observers originally assigned less causality to the situation unless videotape impressed situational factors upon them.

The greater amount of change on the situational dimension may also reflect people's more general way of viewing the role of dispositions in causing behavior. It may be that people characteristically assign fixed and fairly high importance to personal responsibility for behavior. Consequently, they may be left with only one means of modifying their relative assignment of causality and responsibility, namely by varying their evaluations of the situation. In line with this possibility, there may have been a ceiling effect for dispositional attributions in the present study; the overall mean importance assigned to dispositional causes equalled nearly 7 out of a possible 9 scale points. Subjects were thus left with little room to express enhanced dispositional influences.

Up to this point, we have limited our discussion of attributions to information-related variables. We have viewed actors and observers as cool, collected information processors, although

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with limited points of view. Undoubtedly motivational variables, such as the need to maintain self-esteem and particular self-concepts, play an important role in determining individuals' attributions. The crucial question to ask is whether the findings of this study can be generalized to situations in which motivational factors are more predominant. The getting-acquainted conversation used in the present study was designed to have the following low-keyed features. 1) The behaviors elicited in the conversations were routine and probably were not highly relevant to actors' self-concepts. 2) The interaction between subjects was fairly unemotional. Actors were probably not deeply involved in confronting their own personalities and motivations or each other's. 3) Actors and observers did not have the opportunity to discuss their potentially opposing views of the actor's behavior. It is therefore important to consider whether the present findings generalize to situations where actors and observers are more emotionally involved, such as in psychotherapy and T-groups. There is reason to believe that the present findings have some applicability to the use of videotape in such settings.

Videotape in Therapy and T-Groups

There has been a recent and dramatic increase in the application of videotape feedback in therapy and human relations training. In 1966, Alger and Hogan asserted that "videotape

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recording represents a technological breakthrough with the kind of significance for psychiatry that the microscope has had for biology." In 1969, The Journal of Nervous and Mental Disease devoted two consecutive issues to studies of videotape self-observation in the behavioral sciences. Yet in spite of their rapid growth, videotape techniques have benefited from very little theoretical exploration (Geertsma, 1969). Although the present study was designed to test an hypothesis derived from attribution theory, some of the findings, theoretical notions, and techniques may be relevant to videotape applications.

The most consistent finding in the videotape therapy literature is that patients who see themselves on tape show an increase in their "objective knowledge" about their own behavior (cf. Bailey and Sowder, 1970; Stern, 1968; and Holtzman, 1969). It should be noted that "objectivity" is typically defined in these studies as the degree to which the patient agrees with the therapist's impressions of his behavior. Such was the case in a study by Reivich and Geertsma (1968) where "objectivity", as measured by the agreement between the patient's self-ratings and the ratings of psychiatric nurses, increased after videotape self-observation. Concurrent with the increase in objectivity is a decrease in defensiveness, an apparent breakdown of defensive self-concept maintenance. For instance, in the

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area of T-group training, Alderfer and Lodahl (1971) used videotape playback in groups and measured, from transcripts, changes in subjects' "openness." Openness was defined as willingness to explore the internal meaning of and accept personal responsibility for an attitude or behavior. The authors found significant increases in such self-examining behavior after videotape exposure. Case studies in marital therapy have also shown a decrease in defensiveness after videotape self-observation. Kagan, Krathwohl, and Miller (1963) and Alger and Hogan (1966b) have reported that marriage partners are more willing to share the blame for a poor relationship after seeing themselves interact on videotape.

There are at least two reasons why videotape might increase a patient's objectivity and break through his defense mechanisms. First, videotape is, by its very nature, nearly perfectly objective. The axiom that "pictures don't lie" is hard for anyone to discount. Only the most pathological individual could assert that the person he saw on videotape was not himself, or that he didn't actually perform the behavior recorded on tape. Such undeniable information is certain to have dramatic effects on a person's self-concept maintenance. One's usual repertoire of defense mechanisms is not equipped to deal with totally objective feedback. Most of one's defenses against unflattering feedback involve discrediting the source of communication -- denying its accuracy, imputing motivated distortions to the communicator, or rejecting the

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inferences that often come with the information. These objections are hard to raise when the source of information is an electronic recorder.

There is further support for the notion that objective feedback is less likely to be rejected by the receiver. Studies of the conditions under which feedback will be accepted or denied have shown that both complimentary and unflattering feedback are most effective when they are behaviorally specific and non-inferential. Argyris (1962) proposes that the most effective interpersonal communicator feeds back only the most objective data, i.e. acts toward others like a videotape machine. Similarly, Kanouse and Canavan (1971) suggest that flattery will not get you very far unless the compliment is specific in nature. To be believed, the communicator must say "That's a pretty shirt," rather than "You have excellent taste in clothes." Kanouse and Canavan further suggest a mechanism to account for this phenomenon. When an individual is given more general feedback, such as "You have excellent taste," he processes the information deductively, that is he begins to look for specific cases to prove or disprove the proposition. When the deductive chain finally uncovers a disconfirming case ("But nobody likes the ties I wear") the individual may reject the original feedback entirely. On the other hand, when the individual receives specific feedback ("That's a pretty shirt") he will process the data inductively, searching for a general principle to explain the item of information.

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The individual may arrive at a somewhat more general principle ("I have good taste in shirts") before finding a contradictory case to limit his inferences. But while the first individual ends up rejecting the entire inferential feedback, the second individual accepts the specific feedback and arrives at his own inferences.

A second reason why videotape might affect patients' defense mechanisms comes from the attribution notions of the present study. Attribution theory suggests another avenue of denial which individuals may use to reject non-specific feedback from others, but which would be modified by videotape. A patient can counter feedback from a therapist with "Yes, I did behave that way, but I was merely responding to exceptional circumstances." In other words, the individual can escape some responsibility for his behavior by attributing it to situational causes. The present study, however, suggests that the tendency to deny personal responsibility by attributing behavior to the situation is reduced after videotape self-observation. Actors who were focused toward themselves and away from the situation attributed less causality to the situation. Furthermore, this seemed to occur even for unflattering behaviors, such as a relative lack of friendliness. There was essentially no correlation between perceived friendliness and situational attribution for self-viewing actors. Videotape, by focusing in on the actor, caused the actor to focus out potential situational causes for his behavior.

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This last point has serious implications. The present study suggests that actors who view themselves may underestimate the importance of potentially real and viable situational explanations for their behavior. Indeed, self-viewing actors assigned less situational cause to their behavior than did any of the observers. This finding is particularly striking since under conditions of no videotape or of repeated Same Orientation observers attributed less causality to the situation than did actors. Jones and Nisbett have suggested that observers, not excluding therapists, are inclined to underattribute causality to the situation. This poses a disturbing possibility. Ironically, the therapist and the self-viewing patient could reach complete agreement about the patient's behavior, yet this agreement could result from a mutual underestimation of the importance of the patient's situation in causing his behavior. This collaborative illusion between patient and therapist could be especially harmful if the patient blames himself for behavior that is in fact due to some aspect of his environment. This possiblity raises the general question as to whether videotape self-confrontation will always have therapeutic consequences.

Therapeutic Consequences of Videotape Self-Confrontation

What little theory exists about how videotape affects therapeutic change has focused on the assertion that videotape

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presents a patient with knowledge about his own behavior that is inconsistent with his self-image. Several authors (cf. Boyd and Sisney, 1967; Perlmutter, Leob, Gumpert, O'Hara, and Higbie, 1967) have used the tenets of psychological consistency theories to account for patients' improvement in therapy. Dissonance theory (Festinger, 1957) asserts that individuals have a strong and basic need to reduce inconsistencies between their behavior and their self-image. It is this need, some therapists claim, that leads to therapeutic change.

Dissonance and other consistency theories, however, do not predict what a person will change as a result of perceived discrepancy between his behavior and his self-image. An individual could change his behavior to agree with his self-image and thus reduce the inconsistency, but he could also change his self-image to coincide with the behavior. If a patient's videotaped behavior is extremely pathological or uncomplimentary, and if the patient alters his self-image to agree with that behavior, the consequences could be quite harmful.

Although a majority of case studies of videotape self-confrontation report beneficial results, some cases indicate that such feedback can be destructive. For instance, Carrere (1958) used videotape to show alcoholics how they behave when intoxicated, but he found it necessary to edit the more shocking scenes.

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The full presentation of their behavior when drunk was too stressful for many of his patients. One might speculate that, had these patients not been hospitalized, they would have headed for the nearest bar after seeing their inebriated conduct. Parades, Ludwig, Hassenfeld, and Cornelison (1969) similarly report the lowering of alcoholic patients' self-esteem after viewing their own drunken behavior on tape. Leitenberg, Agras, Thompson, and Wright (1968) gave feedback (although not video) to phobic patients undergoing behavior modification. These authors found that feedback to patients about successful progress speeds their cure, but information about temporary setbacks interferes with the therapy. Finally, Geertsma and Reivich (1965) report that some self-viewing depressive patients become more depressed, some schizophrenic patients engage in more bizarre behavior, and some paranoid neurotics grow increasingly paranoid.

Research on attribution theory provides an explanation for why self-confrontation might lead to exacerbation of a patient's disorder. Storms and Nisbett (1970) demonstrated that insomniacs who attribute their sleeplessness to some negative state within themselves may end up aggravating their original condition. These authors propose that such exacerbation may happen whenever self-attributions of a negative disposition increase the individual's anxiety and when anxiety is an irritant to the

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pathology. This may be true for a variety of pathologies such as impotence, stuttering, and other neurotic conditions. Valins and Nisbett (1971) further suggest that negative self-labeling which results from attributing uncomplimentary behaviors to dispositions within oneself will generally lead to a reduction of self-esteem and an increase in the pathological behavior.

In light of the possible tendency for videotape to enhance the dispositional attribution of behavior, it may be wise for therapists to proceed cautiously with the use of negative videotape feedback. Excessively negative feedback presented via videotape could produce a reduction in the patient's self-esteem, lead to negative self-labeling of dispositional states, and prompt an exacerbation of the pathological behavior. Perhaps a program of incremental negative feedback would prove most successful. Initially, a small amount of negative feedback would be combined with a large amount of complimentary feedback to bolster the patient's self-esteem. As the patient's ability to handle negative information about himself increased, the amount of such information could also increase.

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APPENDIX A

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SAMPLE QUESTIONNAIRE[8]

Name _____

Yale Station or Address _____

Phone _____

Which slip did you draw? (Circle one.) P-1 P-2 O-1 O-2

Note: This questionnaire is confidential. Only the experimenter will see your answers. In particular, the other subjects in this experiment will not see your responses.

Instructions: Most questions are self-explanatory and easy to answer. Many items ask you to respond by circling one of 9 numbers on a scale which has its endpoints labeled with the appropriate dimension.

---

[8] This questionnaire is the version given to Actors. In the questionnaire given to Observers, all references to "you" were changed to "your matched participant."

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The following are some questions about your behavior in the "getting acquainted" conversation you just completed. While most of the questions relate to your behavior, some questions will refer to the other participant with whom you interacted.

1 a) First, what do you think were the most salient and prominent features of your behavior during the conversation? Examples of the types of behaviors you might think about include: smiling alot, acting in a friendly manner, acting like you were very interested, talking alot, being cool toward the other participant, witty, and so on. Write the most salient features of your behavior in the following three spaces.

Descriptions of your behavior:

1.

2.

3.

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1 b) Similarly, what were the three most salient features of the other participant's behavior in the conversation? List the three below.

Descriptions of Other Participant's Behavior:

1.

2.

3.

1 c) Now, considering all six behaviors you have listed above, which three were altogether the most prominent to you about the conversation? You may feel that some or all of your behaviors were more prominent than the other participant's, or you may feel that some or all of his behaviors were more prominent than yours.

Answer this question by circling 3 of the numbers below, corresponding to your six answers to questions 1a and 1b above.

Descriptions of Your Behavior	#1	#2	#3
Descriptions of Other Participant's Behavior	#1	#2	#3

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2. In question 1 you were asked to describe your behavior in your own words. In this question, you are asked to describe your behavior along more standardized dimensions. Each of the questions on the following 4 pages has two parts. The first part asks you to describe your behavior along some dimension (friendliness, nervousness, etc.). The second part asks you to indicate the importance of two factors in causing you to behave the way you did. You will be asked to indicate what influence you think the following had in determining your behavior:

A) Personal characteristics about yourself: How important were your personality, traits, character, personal style, attitudes, mood and so on in causing you to behave the way you did?

B) Characteristics of the situation: How important were such factors as being in an experiment, the "getting acquainted" situation, the topic of conversation, the way the other participant behaved and so on in causing you to behave the way you did?

TURN TO NEXT PAGE

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a) To what extent did you behave in a friendly, warm manner?

9	8	7	6	5	4	3	2	1
extremely friendly behavior								extremely unfriendly behavior

How important were <u>personal characteristics</u> about you in causing you to behave that way?

9	8	7	6	5	4	3	2	1
extremely important								extremely unimportant

How important were <u>characteristics of the situation</u> in causing you to behave that way?

9	8	7	6	5	4	3	2	1
extremely important								extremely unimportant

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b) How much did you talk in the conversation?

9	8	7	6	5	4	3	2	1
talked extremely much								talked extremely little

How important were personal characteristics about you in causing you to behave that way?

9	8	7	6	5	4	3	2	1
extremely important								extremely unimportant

How important were characteristics of the situation in causing you to behave that way?

9	8	7	6	5	4	3	2	1
extremely important								extremely unimportant

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c) To what extent did you behave in a nervous, fidgety manner?

9 8 7 6 5 4 3 2 1

behaved extremely nervous — behaved extremely calm

How important were personal characteristics about you in causing you to behave that way?

9 8 7 6 5 4 3 2 1

extremely important — extremely unimportant

How important were characteristics of the situation in causing you to behave this way?

9 8 7 6 5 4 3 2 1

extremely important — extremely unimportant

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d) To what extent did you dominate the conversation?

9 8 7 6 5 4 3 2 1

dominated completely — dominated not at all

How important were personal characteristics about you in causing you to behave that way?

9 8 7 6 5 4 3 2 1

extremely important — extremely unimportant

How important were characteristics of the situation in causing you to behave that way?

9 8 7 6 5 4 3 2 1

extremely important — extremely unimportant

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3. The following questions ask about you in general (not just in this conversation).

a) How friendly of a person are you in general?

9 8 7 6 5 4 3 2 1

extremely friendly — extremely unfriendly

b) How nervous of a person are you in general?

9 8 7 6 5 4 3 2 1

extremely nervous — extremely calm

c) How talkative of a person are you in general?

9 8 7 6 5 4 3 2 1

extremely talkative — extremely quiet

d) How dominant of a person are you in general?

9 8 7 6 5 4 3 2 1

extremely dominant — extremely non-dominant

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4 a) Considering all of your behavior in the conversation, do you think you acted similar to or different from the way most people act in getting acquainted situations?

9 8 7 6 5 4 3 2 1

extremely similar — extremely different

b) Outside the laboratory (in the real world!) how do you think most people who know the other participant (his friends, roommates, etc.) act toward him? Similar to or different from the way you acted toward him?

9 8 7 6 5 4 3 2 1

extremely similar — extremely different

c) Again in the real world, how do you act in most other social situations? Similar to or different from the way you acted today?

9 8 7 6 5 4 3 2 1

extremely similar — extremely different

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5. Who talked more in the conversation? You or the other participant?

9 8 7 6 5 4 3 2 1

you talked very much more — other participant talked very much more

6. On the basis of what we have done so far today, how much new information have you gained that you didn't already know?

a) How much did you learn about getting acquainted situations?

9 8 7 6 5 4 3 2 1

learned a great deal — learned nothing new

b) How much did you learn about yourself?

9 8 7 6 5 4 3 2 1

learned a great deal — learned nothing new

c) How much did you learn about the other participant?

9 8 7 6 5 4 3 2 1

learned a great deal — learned nothing new

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7. How much have you enjoyed the various things we've done so far today?

a) How much did you enjoy the conversation?

9 8 7 6 5 4 3 2 1

extremely enjoyable — extremely unenjoyable

b) How much did you enjoy the videotape?

9 8 7 6 5 4 3 2 1

extremely enjoyable — extremely unenjoyable

c) How much did you enjoy answering this questionnaire?

9 8 7 6 5 4 3 2 1

extremely enjoyable — extremely unenjoyable

8. As a result of what we have done today, are there any aspects of your own behavior in getting acquainted situations that you think you might like to change, improve, etc.? How much do you feel that there are some things you would like to change?

9 8 7 6 5 4 3 2 1

certain I want to change somethings — certain I do not want to change anything

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8 b) If there are some things about your own behavior in getting acquainted situations that you would like to change, would mention some of those things below?

9. Do you wish to make any other comments about this experiment?

When you have finished, please turn your questionnaire over so that the experimenter will know you are done. Thank you.

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APPENDIX B

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SCRIPT

In the waiting room: Hello, are you all here for the study on "getting acquainted"? Fine. My name is Mike Storms and I'll be conducting the study today. Let me explain my research briefly before we go into the rooms we'll be using. This is a study in an area of social psychology called "interpersonal dynamics." More specifically, I'm interested in what I call "getting acquainted"--that is, what happens when two strangers meet for the first time and initiate their first conversation? How does a person behave, what does he decide to talk about, how do the two people decide whether they have anything in common or whether they like each other? I think we frequently find ourselves getting acquainted with a new person. We are always meeting new people in classes, in the dining halls, and at social events; and striking up a first conversation with someone new. As a matter of fact, however a relationship turns out, whether the people end up close friends or even arch enemies, all relationships have one thing in common--at some point in time the two people had to meet for the first time and initiate their first conversation. That's what we're interested in here.

Two of you in this study will be doing just that. You will be having a short first conversation with each other. In addition to the two of you who will actually be having a conversation, this study also calls for two observers. In order to obtain the most objective data, we need to have both involved participants, and uninvolved observers. We'll draw cards to determine which two of you will be the observers and which two

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will be the participants. (Cards are drawn) Who has the slip marked P-1? And who has P-2? O.K., you will be the two participants. Do you know each other? Good. Now who has O-1? You will be one of the observers. Of course, you will see and hear the entire conversation, but I would like to ask you to pay particularly close attention to P-1; he is your matched participant. And you must have O-2. Again, you will see and hear the entire conversation, but you should pay especially close attention to your matched participant, P-2.

Before we go into the experimental rooms, let me explain exactly what you two participants will be doing in this study. You will be having a brief, 5 minute conversation with each other. Only you two participants will be involved in the conversation. I'll tell you when to start and stop, but aside from that, neither I nor the two observers will be involved in the conversation. In the conversation, you two should introduce yourselves and then talk about anything you wish. You might talk about where you're from, or your majors, or anything you wish. During the conversation, you two observers will have the task of simply observing, paying special attention to your matched participant--O-2 to P-2 and O-1 to P-1. Then, after the conversation, you will all four answer a brief questionnaire about that conversation.

There is one thing I would like to add to the procedure today. I've gotten hold of some videotape equipment and I will be taping your conversation. My thought was that it might be useful to you in answering the questionnaires to see the conversation replayed on tape.

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If there are no questions, we can go on into the room we'll be using.

(In the experiment room): Participant-1, you should sit here. P-2, sit here across from P-1. O-1, you sit here diagonally across from P-1 so you can get the best view of him. O-2, you sit here, diagonally across from P-2 so you can get the best view of him.

Now, for this conversation, just relax and act naturally. Just think of it as meeting someone at the dinner table and striking up a conversation. You may want to begin with your names and where you live and then just let the conversation go on from there. Of course, you two observers should just sit quietly and observe. I'll say when you should begin and when you should stop. Now give me a minute to start the tapes and then I'll tell you to start.

--5 minutes later--

Stop your conversation now, please. Give me a few minutes to rewind the tapes. Please don't talk to each other for now.

--(control condition): (After some switch switching) I'm afraid this is lousy equipment. It just didn't take a good enough picture to be worth our while. So we'll just skip the tapes and answer the questionnaire now.

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--(experimental condition): I'm afraid only one camera was working very well and the other one is just too poor to see anything. We'll only be able to see one of you on the videotape; but we'll hear both of you on audio, so it's not a total loss. As I replay the good tape, look here at the monitor. Videotape gives us a chance to have a review of the event before answering questions about it.

Now, I'd like you to answer a questionnaire. I think the questions are self-explanatory, but if you have any questions, just speak up. Since, in some cases, you will be answering questions about each other, I would like to stress that your answers are confidential. You will not be shown each other's responses, and I won't even be looking at your answers until after the experiment. Also, to give you a little more privacy and elbow-room, I'd like to take two of you to the next room to answer your questionnaire. (Subjects taken to next room decided on basis of prepared sheet, so that it is random and balanced).

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APPENDIX C

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Table C-1

Dispositional, Situational, and (Dispositional-Situational)

Attribution Scores on Friendliness

	Same Orientation	Control	New Orientation
Actors' Attributions of their own behavior			
Dispositional	7.10	7.05	7.45
Situational	6.30	6.50	5.50
Dispositional-Situational	.80	.55	1.95
Observers' Attributions of their matched Actor's behavior			
Dispositional	7.25	7.25	6.70
Situational	5.60	5.35	6.20
Dispositional-Situational	1.65	1.90	.50

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Table C-2

Dispositional, Situational, and (Dispositional-Situational)

Attribution Scores on Talkativeness

	Same Orientation	Control	New Orientation
Actors' Attributions of their own behavior			
Dispositional	6.80	6.95	6.80
Situational	6.20	6.50	4.80
Dispositional-Situational	.60	.45	2.00
Observers' Attributions of their matched Actor's behavior			
Dispositional	6.90	6.55	6.25
Situational	5.30	6.05	6.60
Dispositional-Situational	1.60	.50	-.35

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Table C-3

Dispositional, Situational, and (Dispositional-Situational)

Attribution Scores on Nervousness

	Same Orientation	Control	New Orientation
Actors' Attributions of their own behavior			
Dispositional	5.55	6.60	6.65
Situational	7.40	6.65	5.45
Dispositional-Situational	-1.85	-.05	1.20
Observers' Attributions of their matched Actor's behavior			
Dispositional	6.70	6.70	6.25
Situational	5.75	5.50	6.05
Dispositional-Situational	.95	1.20	.20

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Table C-4

Dispositional, Situational, and (Dispositional-Situational)

Attribution Scores on Dominance

	Same Orientation	Control	New Orientation
Actors' Attributions of their own behavior			
Dispositional	6.65	6.75	6.60
Situational	6.05	5.45	4.95
Dispositional-Situational	.60	1.30	1.65
Observers' Attributions of their matched Actor's behavior			
Dispositional	6.25	6.80	6.55
Situational	5.55	5.60	5.30
Dispositional-Situational	.70	1.20	1.25

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Table C-5

Level of Behavior Totaled Over All Four Behaviors

	Same Orientation	Control	New Orientation
Actors' perceptions of their own behavior			
Direct values	23.30	22.30	24.65
Deviation from midpoint	7.50	6.50	6.75
Observers' perceptions of their matched Actor's behavior			
Direct values	23.85	21.80	22.65
Deviation from midpoint	7.45	7.30	7.25

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Table C-6

(Present Behavior-General Behavior) Discrepancy Scores for Each Behavior Considered Separately

	Same Orientation	Control	New Orientation
Actors' perceptions of their own behavior			
Friendliness	1.75	.50	.75
Talkativeness	2.10	1.50	.85
Nervousness	1.30	1.90	1.35
Dominance	2.0	1.10	1.30
Observers' perceptions of their matched Actor's behavior			
Friendliness	.55	1.20	1.15
Talkativeness	1.70	1.35	1.55
Nervousness	1.90	.85	1.55
Dominance	1.30	1.50	1.65

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Table C-7

Measures of Perceived Similarity Between Actor's Behavior and Other's Behavior

	Same Orientation	Control	New Orientation
Actors' perceptions of the similarity of their behavior to:			
A. Themselves in other settings	5.80	6.40	6.75
B. Others in same setting	5.30	6.55	6.20
C. Others who knew other participant	5.10	5.30	5.40
D. Self vs Others index : $A-\frac{B+C}{2}$	.60	.48	.95
Observers' perceptions of the similarity of their matched Actor's behavior to:			
A. Actor in other settings	6.30	6.25	5.75
B. Others in same setting	5.65	5.90	5.30
C. Others who knew other participant	3.90	4.50	4.35
D. Actor vs Others index: $A-\frac{B+C}{2}$	1.52	1.05	.92

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APPENDIX D

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Table D-1

Analyses of Variance on Total Dispositional-minus-Situation Index Total Disposition Scores, Total Situation Scores, and Disposition-minus-Situatior Index Summed over Friendliness, Talkativeness and Nervousness

I. Dispositional-minus-Situation Total

Between cells	df	MS	F	p
Role	1	14.700	<1	ns
Orientation	2	28.408	1.01	ns
Role X Orientation	2	273.175	9.72	.001
Within cells	114	28.117		

II. Disposition Total

Between cells				
Role	1	2.133	<1	ns
Orientation	2	6.775	<1	ns
Role X Orientation	2	19.258	1.38	ns
Within cells	114	13.957		

III. Situation Total

Between cells				
Role	1	28.033	1.08	ns
Orientation	2	31.258	1.21	ns
Role X Orientation	2	149.608	5.78	.005
Within cells	114	25.857		

IV. Dispositional-minus-Situation Summed over Friendliness, Talkativeness, Nervousness

Between cells				
Role	1	20.833	1.17	ns
Orientation	2	7.675	<1	ns
Role X Orientation	2	248.008	13.89	.001
Within cells	114	17.851		

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Table D-2

Analysis of Variance on Present Behavior-minus-General Behavior Discrepancy Index Summed over All Behaviors

Present Behavior-minus-General Behavior

Between cells	df	MS	F	p
Role	1	.075	<1	ns
Orientation	2	22.258	2.68	ns
Role X Orientation	2	28.075	3.38	.05
Within cells	114	8.305		

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