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THE EFFECTS OF PROCESSING GOAL AND LEVEL OF INFORMATION INCONSISTENCY ON THE PROCESSING OF PERFORMANCE INFORMATION

By

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ABSTRACT

THE EFFECTS OF PROCESSING GOAL AND LEVEL OF INFORMATION INCONSISTENCY ON THE PROCESSING OF PERFORMANCE INFORMATION

By

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The effects of an individual's goal when processing performance information and the inconsistency of subsequent information on performance ratings and recall of performance information were examined. Undergraduate psychology students (n = 178) viewed slides containing behavioral statements about the performance of two police officers, and were asked to recall the information and to make performance ratings based on the information. Interaction effects between processing goal, level of information inconsistency, and initial performance level on recall and ratings were found, providing support for the hypotheses dealing with recall of the performance information. However, support for the hypothesis dealing with performance ratings was mixed. Theoretical and practical implications of these results are discussed, and directions for further research are suggested.

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INTRODUCTION

Much of the current work in the area of performance appraisal has been dominated by theory and research concerned with the cognitive processes involved in making a performance evaluation (e.g. Ilgen & Feldman, 1983; DeNisi, Cafferty, & Meglino, 1984; DeNisi & Williams, 1988). It has been suggested that, in order to understand the errors made in performance ratings, one must first understand the operations involved in processing performance information (DeNisi et al., 1984). To achieve this, researchers have borrowed from the social cognition literature, which has been concerned with an individual's ability to process information about others (Ilgen & Feldman, 1983).

DeNisi and his colleagues (1984) outlined a model of performance appraisal that views appraisal as a series of social cognitive operations: beginning with (1) the observation and acquisition of performance information, followed by (2) the encoding and storage of this information into memory, and (3) its retrieval from memory, ending with (4) the integration of the retrieved information in order to assign a formal evaluation. DeNisi et al. (1984) also indicated that each of these steps in the appraisal process

is affected by a number of personal or contextual factors. By examining both the social cognition and performance appraisal literature, they were able to identify a number of factors that influence how performance information is processed. Based on the premise set forth by DeNisi and his colleagues, the present research investigates how two contextual factors (processing goal and level of information inconsistency) affect the encoding and storage of performance information which, in turn, affect the retrieval of the information and the judgments that are made.

A distinction has been made between an impression goal (incoming information is organized into an impression), and a memory goal (incoming information is organized so that it can be recalled at a later time). It has been suggested that one's processing goal determines the way in which information is encoded and stored in memory as well as the information that is recalled (Hamilton, Katz, & Leirer, 1980; Srull, 1983). More recently, researchers have used processing goal to try to explain the lack of correspondence between a judgment made of a person and specific information that can be recalled (Hastie & Park, 1986; Lichtenstein & Srull, 1987).

The differentiation between impression and memory goals of processing information has implications for performance appraisal. A common view is that performance information is stored in memory and is recalled when a performance rating

is made (memory-based). The process of performance appraisal is most likely more complex. In fact, it is likely that individuals also form an impression as information is acquired (impression-based). It is also likely that individuals switch from goal to goal throughout the process of acquiring performance information. Recent research in the area of performance appraisal has examined the relationship between memory and judgment as a way of identifying the conditions under which performance evaluations are impression-based (i.e. when the correlations between the information recalled and ratings are non-significant) and when they are memory-based (i.e. when correlations are significant) (DeNisi, Robbins & Williams, 1989; Williams, Cafferty & DeNisi, 1990).

The social cognition literature has established that an individual's processing goal affects the retrieval of information through its effect on the encoding and storage of the information. The proposed research intends to examine whether processing goals differentially affect performance ratings.

The second contextual factor examined in this study deals with the processing of information that is consistent/inconsistent with previously acquired information. This variable, identified by DeNisi et al. (1984) as a factor that can influence the encoding, storage and retrieval of performance information, has also been

extensively researched in the social cognition literature. It has been suggested that information is differentially processed based on its level of consistency (Hastie, 1980). A model proposed by Hastie (1980) offers a theoretical explanation for differential processing. Research examining the effects on recall have supported the model (e.g. Hastie & Kumar, 1979; Srull, 1981).

The theory and research involving the effects of level of information inconsistency on the processing of information about others has implications for research on performance appraisal. Performance appraisal is an on-going process. New information about ratees is constantly being acquired. The present study investigates how new information about a ratee is considered in relation to previously acquired information. The social cognition research has established that level of information inconsistency affects the retrieval of information through its effect on the encoding and storage of this information. This study examines how new information that is inconsistent with previously acquired information affects subsequent performance ratings.

Therefore, this paper examines two variables from the social cognition literature to increase our understanding of the processing of performance information. Specifically, the present research has three purposes. First, it integrates the research and theory concerned with the

effects of processing goal and level of information inconsistency on the processing of information. Second, the limitations of the existing research are described, and this study makes extensions to the existing research by focusing on the limitations. Finally, the present research hopes to make a contribution within the area of performance appraisal. The variables of processing goal and level of information inconsistency have not been simultaneously examined in the context of performance evaluation.

The next two sections review the literature on processing goals and level of information inconsistency. The third section reviews the literature that has simultaneously researched both processing goals and level of information inconsistency. This section also integrates the literature dealing with these two variables and identifies the limitations of the existing research. This sets the stage for the development of the hypotheses for this study. The last section contains the development of hypotheses as well as a review of the literature that lend support to these hypotheses.

Processing Goal

Several researchers (Hamilton, Katz & Leirer, 1980; Lichtenstein & Srull, 1987; Srull, 1981, 1983) have distinguished between the effects of impression and memory goals on the processing of behavioral information. According to this perspective, an individual given the goal

of forming an impression about a target person will actively organize incoming behavioral information about the target person. As the individual tries to develop a coherent representation of the target person, he/she will engage in a process of relating new information to information already processed (Hamilton et al., 1980). That is, the individual does not encode each new piece of information independently but processes it in relation to what is already known about the target person (Srull, 1983). The resulting representation of the information in memory consists of many associative paths between individual pieces of information. This perspective also suggests that these associations between items facilitate an individual's later retrieval of information about the target person (Hamilton et al., 1980, Srull, 1983). It is also suggested that, under an impression goal, individuals use the incoming information to make evaluations as the information is acquired (referred to as an on-line judgment), causing the information to be stored separately from the evaluation that is formed (Lichtenstein & Srull, 1987).

On the other hand, if an individual is instructed to remember incoming information about a target person (memory goal), there should be no attempt to organize and interrelate pieces of information. Instead, efforts are directed towards other strategies, such as rehearsal of each individual piece of information (Hamilton et al., 1980). In

addition, evaluations will not be made during information acquistion but are computed on the spot from the specific information stored in memory (Lichtenstein & Srull, 1987).

Individuals under an impression goal have a greater number of associative paths between pieces of information (which facilitates recall of the information) than individuals under a memory goal. Researchers suggest that the two processing goals result in differential recall of information about a target person (i.e., under an impression goal, individuals recall more information about a target person than under a memory goal).

Hamilton, Katz and Leirer (1980) conducted one of the earliest investigations of the effects of different processing goals on recall. In three experiments, they manipulated processing goals when presenting information about a target person. In all three experiments they found greater recall of information under an impression goal rather than a memory goal.

Srull (1983) manipulated processing goals when presenting information about a target person and examined the effect on recall and whether recall was moderated by situational conditions. This was examined by manipulating the length of delay before recall (immediate or 12 minutes) and the presentation format of the behavioral information. Presentation format was manipulated by presenting information "blocked" by person (i.e., presenting all

information about the first target person and then presenting all information about the second target person) or in random order. It was hypothesized that in the block condition, individuals should easily be able to form person categories from the information presented. This organization should facilitate recall.

It was also hypothesized that recall under an impression goal would not be affected by presentation format. That is, these subjects should organize information in relation to a target regardless of presentation format. The associative paths formed for each target in the random order condition compensate for the lack of natural categories (which are found in the block condition).

Lastly, Srull (1983) left constant the total number of behaviors presented, but varied the ratio of target persons to behaviors per target persons. (These ratios being 2/64, 4/32, 8/16 or 16/8.) This was also expected to moderate the relationship between processing goal and recall.

The results of this experiment conformed to the hypotheses. In line with the findings of Hamilton et al. (1980), this experiment showed that individuals recalled more information under an impression goal than under a memory goal. In addition, there was an interaction between processing goal and presentation format. Recall under an impression goal was not affected by presentation format, but recall under a memory goal was greater when information was

presented in a block format than when presented in random order. A three way interaction between processing goal, presentation format and delay indicated that this difference was larger when there was no delay before recall. Lastly, there was an interaction between processing goal and the ratio of targets to behaviors per target. Recall under an impression goal increased as the number of targets increased (and the number of behaviors per target decreased). Recall under a memory goal increased as the number of targets decreased (and the number of behaviors per target increased). Lichtenstein and Srull (1987) manipulated impression, memory and comprehension processing goals. A comprehension goal is the most like "natural" observation. There is no attempt to organize and interrelate incoming information (as in an impression goal), nor is there an attempt to rehearse information (as in a memory goal). Recall under a comprehension goal should be lower than recall under an impression or memory goal.

Lichtenstein and Srull (1987) were also concerned about the lack of correspondence between judgments made of a person and specific information that can be recalled about that person. They suggested that the processing goal would moderate the relation between recall and judgment. The processing goal would affect whether an evaluation is made at the time of information acquisition (referred to as an on-line judgment) and prestored in memory or whether an

evaluation is computed on the spot from specific information stored in memory.

For instance, when an individual is under an impression goal, any information in memory would be stored separately from the evaluation that is formed. The result would be a weak relation between the evaluation made and the specific pieces of information recalled. At the other extreme, individuals under a comprehension goal would not make an evaluation at the time of information acquistion, but would need to compute an evaluation when they are asked for one. They would have to make this evaluation with whatever information they can recall; the result being a high correspondence between the evaluation and the specific information recalled. The relationship between the evaluation and the specific information recalled under a memory goal should be higher than with an impression goal, but should be weaker than with a comprehension goal.

Lichtenstein and Srull (1987) manipulated three variables. The first, processing goal, included a comprehension goal as well as impression and memory goals. The second, list composition, consisted of whether positive or negative information was presented first in the list of behavioral statements. The third, testing order, indicated whether recall or a judgment was made first. The dependent variables were the amount of information recalled, the judgment (likability rating) of the target, and the

correlation between judgment and mean scale value of the information recalled.

As expected, Lichtenstein and Srull (1987) found that recall under an impression goal was greater than recall under a memory goal which was, in turn, greater than recall under a comprehension goal. Examination of the likability ratings showed a main effect for processing goal. The target was rated more favorably under an impression goal than under a memory goal or a comprehension goal. An interaction effect between processing goal and list condition on judgments was also found. When positive information was presented first in the list of behavioral statements, impression and memory goal individuals rated the target more favorably, indicating a primacy effect of information on judgment. When positive information was presented last, comprehension goal individuals rated the target more favorably, indicating a recency effect of information on judgement.

The last dependent variable examined was the correlation between the judgment and mean scale value of information recalled. Only under a comprehension goal was this correlation statistically significant. Testing order did not have an effect on any of the dependent variables, nor did it enter into any interactions.

Hastie and Park (1986) were also interested in how processing goals affect the relationship between memory and

judgment. They presented five different models, each of which tries to explain the relationship between memory and judgment. These models range from an availability model (what is available in memory is used to make a judgment) to a set of three models that assume that judgment causes memory, to an independence model (assumes no relationship between memory and judgment).[1] Hastie and Park's (1986) examination of these five models led them to conclude that there are conditions under which one may or may not find a relation between memory and judgment. A condition they identified as important was an individual's processing goal, and in a series of experiments, they tested how processing goals affect the relation between memory and judgment. They found that correlations between memory and judgment were significant under a memory goal, but the correlations were not significant under an impression goal. This suggests that judgments made under a memory goal are memory-based, whereas judgments made under an impression goal are made as the information is acquired.

Sherman, Zehner, Johnson and Hirt (1983) also examined the effects of processing goals on memory and judgment. After presentation of initial information about two football teams, individuals were asked to explain a hypothetical victory by one team. These researchers were interested in

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[1]Readers are referred to Hastie and Park (1986) for a detailed discussion of these models.

whether this task would affect a later judgment and the relationship between this judgment and the information recalled. It was predicted that one's processing goal would influence whether this task would lead to the reconstruction of the initial information. It was expected that, under an impression goal, information would be organized and integrated so that it would resist change from a subsequent explanation task. Under a memory goal, the information is not organized, and the subsequent explanation would likely have reconstruction effects on later judgment and information recalled. The data supported the predictions. Under a memory goal, judgments were biased in favor of the team whose victory was explained. This bias did not occur under an impression goal. The correlation between memory and judgment was significant under a memory goal but not significant under an impression goal.

Recent research in the area of performance appraisal has used the previous literature to identify when appraisal decisions are impression-based and when they are memory-based (DeNisi et al., 1989; Williams et al., 1990). These researchers varied the the appraisal situation (e.g. the appraisal purpose differed or the incidence of diary-keeping differed) and examined the correlations between the amount of information recalled and the performance ratings. They concluded that under certain conditions, ratings were primarily impression-based (the correlations were not

significant), while under other conditions, ratings were primarily memory-based (the correlations were significant).

In summary, the social cognition research indicates that an individual's processing goal affects processing of behavioral information which, in turn, affects the retrieval of the information. This factor also influences the relationship between what is recalled and the judgments that are made. The performance appraisal research indicates that there are conditions when performance evaluations are primarily impression-based, and conditions when they are primarily memory-based. Future research should examine how one's processing goal affects the actual performance ratings.

Level of Information Inconsistency

Social cognition researchers have recently examined the way in which information about persons is organized in memory[2] (Srull, 1981). Some of the research on person schemata has been concerned with trying to account for how new behavioral information acquired about a target person is actively integrated with what is already known about a target person. A main concern has been how an individual processes behavioral information that is either consistent or inconsistent with an existing person schema.

Several early studies (Cantor & Mischel, 1977;

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[2]The cognitive organization of information about a person is commonly referred to as a person schema.

Rothbart, Evans & Fulero, 1979; Snyder & Uranowitz, 1978), have reported that behavioral information that is consistent with an existing person schema is remembered better than information that is inconsistent. It is suggested that these findings may be due to an individual's resistance to change initial beliefs. Thus, information consistent with one's belief will be preferentially encoded and better remembered than other information (Cantor & Mischel, 1977).

Nevertheless, a series of experiments by Hastie and Kumar (1979), reported that free recall of information inconsistent with an existing person schema was greater than recall of information consistent with the existing person schema. This effect was found when individuals were presented with an equal number of consistent and inconsistent behavioral statements. The effect was even greater when the number of inconsistent statements within the list was reduced.

Hastie (1980) proposed an associative network model to account for these results. Hastie assumed that behavioral information inconsistent with an existing person schema is difficult to encode and remains in working memory longer. This information is thought of in relation to other information known about the target person in an attempt to explain its occurence. Consequently, inter-behavior associations tend to be formed between each inconsistent behavior and the others (cf. Wyer & Srull, 1986).

Information consistent with an existing person schema is easily encoded and integrated with information known about the target person. Thus, none of the associative paths that are formed for inconsistent information are formed for consistent information. This model suggests that the greater number of associative paths formed with inconsistent information facilitates its recall. That is, the probability of retrieving a particular item should be a function of the number of associative paths that have been formed during encoding (cf. Srull, 1981). This would explain why Hastie and Kumar (1979) found that a greater proportion of inconsistent information than consistent information was recalled.

Srull (1981) has offered a criterion-based explanation for why research results have been conflicting. Two of the early studies (Cantor & Mischel, 1977; Snyder & Uranowitz, 1978) tested for recognition rather than free recall of the information. The retrieval process underlying free recall is assumed to traverse the associative paths laid down in the network (cf. Srull, 1981). Use of the recognition procedure bypasses this retrieval process with its associative paths, which eliminates the advantage that inconsistent information has in being remembered better than consistent information. In the early study by Rothbart et al. (1979), because there were more consistent than inconsistent behaviors, the <u>absolute</u> number of consistent

behaviors recalled was greater. In fact, a greater proportion of inconsistent information was recalled (Srull, 1981). Higgins and Bargh (1987) have also suggested that the Rothbart et al. (1979) study's differing results are attributable to terminology. That is, the Rothbart et al. (1979) study reported that "expected behaviors" were better recalled than "unexpected behaviors". These "unexpected behaviors" included both behaviors irrelevant and inconsistent with the expectancy. It is important to make a distinction between behaviors that are "unexpected" because they are irrelevant to the expectancy and behaviors that are "unexpected" because they actually violate the expectancy (Higgins & Bargh, 1987).

Much of the recent research has offered support for the Hastie (1980) associative network model. In a series of experiments, Srull (1981) showed that a greater proportion of inconsistent than consistent information is recalled. In two experiments, Srull (1981: Experiments 2 & 3) also manipulated the composition of the list of information and examined the effect on recall of type of information. In one experiment, Srull manipulated list composition by holding the number of consistent items constant, but varied the number of inconsistent items. He found that the proportion of consistent items recalled increased as the number of inconsistent items increased. In the other experiment, Srull manipulated list composition by holding

the number of inconsistent items constant, but varied the number of consistent items. He found that varying the number of consistent items had no effect on the recall of inconsistent items. Srull (1981) explained how the model would account for these results. Increasing the number of inconsistent items facilitated the recall of consistent information because it led to more associative paths linked to the consistent information. But increasing the number of consistent items had no effect on the number of paths emanating from the inconsistent information and, consequently, there was no effect on the recall of inconsistent information.

As Hastie and Kumar (1979) have noted, there are criterion-based factors that affect whether consistent or inconsistent information is remembered at a higher rate. Srull (1981: Experiment 4) made an additional elaboration on the Hastie (1980) model by identifying another factor that affects what type of information is remembered. In this experiment Srull manipulated whether individuals completed an irrelevant task during the time they are processing the consistent/inconsistent information. Information was presented sequentially and individuals rehearsed aloud the item that was being presented. It was hypothesized that this irrelevant task would affect the subject's ability to form the associative paths between pieces of information and lead to the recall of inconsistent information losing its

advantage over consistent information. The results were in the hypothesized direction. When individuals did not engage in the irrelevant task, recall for inconsistent information was greater than for consistent information. But when individuals did engage in the irrelevant task, recall of inconsistent information declined to match the level of recall of consistent information. Although Srull varied the number of times (1-3) subjects were to rehearse the items aloud, this manipulation did not make a difference.

Stern, Marrs, Millar and Cole (1984) have identified an additional factor that affects whether inconsistent information is recalled at a higher rate. They hypothesized that the information will be differentially recalled based on whether the target is a single individual or a group. They reasoned that a person would not expect members of a group to behave consistently, but they do expect an individual to behave consistently. When presented with information that is inconsistent, only those individuals who are forming an impression of an individual will deeply process this information. Because the recall advantage of inconsistent information is due to its being deeply processed, these researchers expected to find greater recall of inconsistent information for the person who is forming an impression of a single individual. There should be no difference in recall of consistent/inconsistent information for the person who is forming an impression of a group.

In one experiment, these researchers manipulated both level of information consistency and type of target (individual vs. group), and examined the effect on recall. The results were as hypothesized. There was a greater tendency for those individuals who formed an impression of a single individual to recall inconsistent behaviors. Recall of consistent and inconsistent behaviors did not differ for those individuals who formed an impression of a group.

In a second experiment, Stern et al. (1984) included an examination of the time it took to process the behavioral information. They reasoned that if the greater recall of inconsistent information was due to its being deeply processed, then processing time should be higher for inconsistent information. The results indicated that individuals who formed an impression of a single individual did recall inconsistent information at a higher rate. There was also a tendency for inconsistent information to take longer to be processed. This difference between processing time for consistent and inconsistent information was even greater when the target was an individual.

O'Sullivan and Durso (1984) have examined the associative network model from a different perspective. According to O'Sullivan and Durso (1984), if the issue in question is how the consistent/inconsistent information affects the existing schema, then the variable of interest should be memory of the initial information used in

establishing the schema not memory of the information that is consistent or inconsistent with this schema. In two experiments, O'Sullivan and Durso (1984) held constant the initial information used in establishing the schema, varied the subsequent consistent/inconsistent information, and examined recall of the initial schematic information. It was predicted that recall of this initial schematic information should be greater when it is followed by inconsistent information than when it is followed by consistent information. It would be assumed under this model that the subsequent inconsistent information would cause the initial information to be reconsidered, during which time associative paths between the inconsistent and initial information should be formed. Presentation of subsequent consistent information should not lead to the reconsideration of this initial information.

In the first experiment, O'Sullivan and Durso (1984) manipulated three variables: (1) the level of consistency of subsequent items, (2) the relevance of the subsequent items ("core" or very relevant items vs. "peripheral" or less relevant items), and (3) the length of delay (none vs. two days) after presentation of subsequent information, but before recall of initial information.

In terms of the relevance of information, it was hypothesized that the facilitating effect of inconsistent items would be limited to the core-inconsistent items. As

suggested by the Hastie (1980) model, it is only those items that are distinctive (i.e. core-inconsistent items) that are deeply processed. It is this deep processing that provides linkages to schematic information and benefits its recall. Inconsistent items that are less relevant (i.e. peripheral-inconsistent items) should be considered uninformative; they should be "filtered out", and therefore, not affect the schema. Core-consistent items should be remembered well because "quintessentially characteristic" items (Hastie, 1980) also receive deep processing (cf. O'Sullivan & Durso, 1984). However, these items should not benefit recall of initial schematic information because they should not lead to the reconsideration of the initial information.

In terms of the length of delay before recall, it was hypothesized that associative paths would decay at the same rate across all conditions. In other words, length of delay should not interact with either level of information consistency or relevance of items. This hypothesis is also consistent with the Hastie (1980) model.

O'Sullivan and Durso (1984) used two types of information to prime the initial person schema. First, they described the target person in terms of a label stereotypical of college students (e.g. "jocks", "greeks"), then they provided two supporting facts attributed to that target person. Dependent variables of interest were recall of this initial label and recall of the two supporting

facts.

The results of this experiment showed that recall of the label was not significantly affected by any of the independent variables. Examination of the recall of the two supporting facts showed that this information was recalled at a greater rate when followed by an inconsistent item that was highly relevant. Length of delay before recall only entered into a significant main effect (i.e. recall of the two supporting facts was better after no delay than after a two day delay).

In the second experiment, O'Sullivan and Durso (1984) were interested in the effects of <u>two</u> highly inconsistent items on the recall of the initial schematic information. Therefore, in addition to manipulating level of consistency of subsequent items (consistent vs. inconsistent), they also manipulated number of subsequent items (one vs. two).

These researchers offered two hypothesized outcomes. The first, based on intuition, suggests that two inconsistent items would disrupt schematic processing, leading to the schematic information being recalled least well under this condition. The second, based on the Hastie (1980) model, suggests that two inconsistent items would result in the highest recall of schematic information. The two highly inconsistent items would be deeply processed, resulting in even more linkages to initial schematic information. This greater number of linkages will, of

course, facilitate the recall of schematic information, leading to it being recalled best.

As in the first experiment, dependent variables of interest were recall of the initial stereotypical label and recall of the two supporting facts. The results of this second experiment showed greatér recall of the label when followed by inconsistent information than when followed by consistent information. No other effects that involved recall of the label were found.

As expected, the results showed greater recall of the two supporting facts when followed by inconsistent information than when followed by consistent information. However, the number of subsequent items did not have a main effect on recall of the two supporting facts, nor did it enter into an interaction with level of information consistency. This result does not conform to either of the hypothesized outcomes. These researchers do not offer an explanation for why neither of these hypothesized outcomes were supported. This author suggests that the lack of support for the Hastie (1980) model may be due to a ceiling effect. That is, O'Sullivan and Durso (1984) were examining recall of only two supporting facts. One piece of subsequent inconsistent information may have had all of the possible facilitating effects for recalling this small amount of information. Additional research which increases the number of initial items may very well find the greater

facilitating effect for two subsequent inconsistent items as predicted by the Hastie (1980) model.

The research by O'Sullivan and Durso has taken us one step forward in terms of understanding how the initial person schema is affected by subsequent consistent and inconsistent information. At first glance, the Hastie (1980) model and the early research that has tested it (e.g. Hastie & Kumar, 1979) seem to suggest that an initial schema may be easily modified (due to the high availability of inconsistent information). Yet the results of the preceding research (that inconsistent information improves availability of schematic information) showed us that the model may actually account for the failure of inconsistent information to modify the initial schema.

Interaction between Processing Goal and Level of Information Inconsistency

One conclusion reached earlier in this paper was that there are conditions under which the Hastie (1980) associative network model does not apply. There are conditions in which inconsistent information may not be recalled at a higher rate than consistent information. For instance, one of these conditions, the use of recognition versus recall for a memory task, has previously been addressed. Another one of these conditions seems to be related to an individual's processing goal when he/she is presented with behavioral information about the target

person. This leads to an investigation of the theory and research on the interaction of our two variables of interest, level of information inconsistency and processing goal.

It has been suggested that individuals must be under an impression goal for inconsistent information to be remembered at a higher rate than consistent information (Higgins & Bargh, 1987; Srull, 1981). Individuals under a memory goal should not differentially recall consistent and inconsistent information. The theoretical explanation, in terms of the Hastie (1980) model, is that inconsistent items only undergo additional processing and establish linkages with other information when individuals are attempting to form an impression of the target person (Srull, 1981).

Srull (1981: Experiment 1) has examined the effects of both these variables, level of information inconsistency and processing goal, in the same study. In this experiment, Srull also manipulated length of delay before recall (none vs. two days). It was hypothesized that length of delay would not interact with either level of information inconsistency or processing goal. The model assumes that all associative paths decay at a constant rate across conditions.

Consistent with predictions, it was found that inconsistent items were recalled at a higher rate than consistent items. More items were recalled under an

impression goal than under a memory goal. However, there was also an interaction between processing goal and level of information consistency. While the recall of consistent and inconsistent items did not differ under a memory goal, more inconsistent items were recalled under an impression goal. In terms of the underlying theoretical model, this suggests that items inconsistent with a prior impression undergo additional processing when an individual is attempting to form an impression (cf. Srull, 1981).

An interaction between length of delay and processing goal was also found. Recall was greater under an impression goal when there was no delay, but recall was slighty greater under a memory goal when there was a long delay. Two explanations can account for these results. Individuals with a memory goal may have intentionally rehearsed the items during the two day delay. This would have given them a spurious advantage over individuals with an impression goal who did not rehearse the items because they did not anticipate a recall test after the delay period (Srull, 1981). This delay may have also caused the individual under a memory goal to form an impression of the target.

In a series of experiments, Srull, Lichtenstein, and Rothbart (1985) examined both processing goal and level of information inconsistency. One experiment (Srull et al., 1985; Experiment 7) was a replication of Srull's (1981; Experiment 1) earlier examination of these two variables,

however, a delay condition was not included. The results from this study parallelled those found in the earlier study.

In two other experiments, Srull et al. (1985; Experiments 5 and 6) did not prime individuals with an initial expectancy, but allowed individuals to develop their own expectancies. Information was presented in blocks consisting of two consistent, one inconsistent, and two irrelevant items. It was reasoned that, at first, individuals under an impression goal would not have a clear impression of the target, and inconsistent information would not be recognized as being inconsistent. However, at some point during information acquisition, a general impression will be formed and inconsistent information will be recognized as inconsistent information. On the other hand, individuals under a memory goal should never distinguish between consistent and inconsistent information.

Srull et al. (1985; Experiments 5 and 6)[3] examined recall of information across the successive presentation of blocks of information. As expected, recall of consistent and inconsistent information was equal across blocks under a memory goal. Recall of consistent and inconsistent information was equal for the first few blocks under an

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[3]Experiments 5 and 6 differed only in that consistent information was of a negative nature for experiment 5, but was of a positive nature for experiment 6. Results were very similar across experiments.

impression goal. But at a certain point, recall of consistent and inconsistent information began to differ. Inconsistent information was recalled at a greater and greater rate from the fifth to the tenth (and last) block of information. It was suggested that this point of divergence occurred at the time individuals had formed a clear impression of the target.

Summary

A review of the research and theory involving processing goals and level of information inconsistency has been presented. First the research dealing with processing goals was reviewed, followed by the research involving level of information inconsistency. Finally, the research that dealt simultaneously with both variables was reviewed. A major limitation within each of the three areas of research is that it has only focused on how the variables affect recall of behavioral information. For example, three studies have examined the effects of processing goal on recall (Hamilton et al., 1980; Srull, 1983; Lichtenstein & Srull, 1987), whereas only recent research has begun to examine the effects of processing goal on variables other than recall (e.g. Hastie & Parks, 1986; Lichtenstein & Srull, 1987). The review of the research on level of information inconsistency indicates that five studies have examined the effect on recall of the consistent/inconsistent information (Hastie & Kumar, 1979; Srull, 1981 - Experiments

2, 3 and 4; Stern et al., 1984 - Experiment 1), whereas one study (O'Sullivan & Durso, 1984) has examined the effects on recall of initial schematic information. Only one study (Stern et al., 1984; Experiment 2), which examined the effects on the time it took to process the consistent/ inconsistent information, has focused on a dependent variable other than recall. The research involving both processing goals and level of information inconsistency has only examined the effects on recall. In order to understand how these two variables combine to affect processing of behavioral information, variables other than recall must be examined.

The intentions of this study are to extend the research on the interaction between processing goals and level of information inconsistency by examining their effects on variables other than recall. The model of performance appraisal by DeNisi et al. (1984) suggests that factors that affect the encoding, storage, and retrieval of performance information should also affect the formal evaluations assigned to a ratee. The following section presents a detailed discussion of how an individual's subsequent performance evaluations may be influenced by the interaction between processing goals and level of information inconsistency.

Hypotheses

Research indicates that subsequent information inconsistent with prior information is recalled at a higher rate than consistent information when individuals are under an impression goal. However, it is not clear how this greater recall of inconsistent information affects an initial impression. This study explores the effects of information inconsistency on recall and judgment.

It has been suggested that inconsistent information is more memorable because it has been more deeply processed. This suggests that the greater availability of inconsistent information could contribute to the initial impression being modified or abandoned. However, O'Sullivan and Durso (1984) have shown that subsequent inconsistent information facilitates recall of initial information used to establish an impression. That is, the inconsistent information causes the individual to reconsider the information used in forming the initial impression. These results suggest that inconsistent information may actually fail to modify the initial impression. Other research supports this conclusion (e.g. Srull 1981; Experiment 2).

Previous studies have only made inferences about the effects of inconsistent information on an existing impression by examining the effects on recall. A more direct way of determining whether inconsistent information does or does not cause an individual to modify an existing

impression is by examining the performance ratings that are made after inconsistent information has been presented.

It is possible to make predictions about how inconsistencies affect subsequent ratings of a target. As was stated above, some research has indicated that inconsistencies may not lead to a modification in the existing impression (O'Sullivan & Durso, 1984; Srull, 1981). Although it was shown that recall is higher for the inconsistent information, it was also shown that inconsistent information facilitated recall of consistent information. In addition, a number of studies from the social cognitive literature dealing with the perserverance of initial impressions lend support to the prediction that an existing impression is not easily modified (Ross, Lepper, & Hubbard, 1975; Anderson, Lepper, & Ross, 1980). Although these studies do not directly examine the effects of inconsistent information on an existing person schema, they do examine how individuals' judgments are affected by contradictory information. Following is a review of these studies.

The first study (Ross, Lepper & Hubbard, 1975) to demonstrate the "perserverance effect" of initial impressions dealt with the perserverance of self-perceptions and social perceptions. In this study, individuals were given false feedback information indicating their success or failure on a task. At a later point in the experiment, this

feedback information was negated through a "debriefing procedure". Although individuals completely accepted this subsequent information, when they were later asked to rate their success or failure on the task, their ratings continued to be heavily influenced by the initial false feedback information. This effect was also shown for the social ratings made by outside observers. That is, these individuals were rated by others who witnessed both the initial session when false information was given and the later debriefing session. The ratings of these observers were also heavily influenced by the initial false information.

A second study (Anderson, Lepper & Ross, 1980) extended the research of the previous study by demonstrating that the "perserverance effect" occurs even when an individual's initial information is minimal and logically inadequate. In the first experiment, individuals were presented with two case studies which led them to believe that there was a relation between risk taking and success or failure as a firefighter. All individuals also performed a task in which they offered an explanation for why this relation existed. In a debreifing session that followed, individuals were informed that the relationship they had discovered and explained was actually fictitious. They were also told that other individuals had been presented with information that described the opposite relationship. However, when

individuals were later asked to make predictions that involved this relationship, their predictions were heavily influenced by the initial information. Even though the information from which individuals formed their initial belief was minimal and was later negated, individuals still did not make the appropriate modifications in their beliefs. This "perserverance effect" also held in the second experiment in which half of the individuals did not even participate in the explanation task.

Another study (Sherman, Zehner, Johnson & Hirt, 1983), reviewed earlier, supported this idea of a "perserverance effect" but also showed that processing goals moderated the effect. It was found that initial information was modified by a subsequent explanation task for individuals under a memory goal, but the initial information resisted change for individuals under an impression goal.

Effects on Recall of Subsequent Information

The formation of the hypotheses dealing with the effects of processing goal and level of inconsistency on ratings of performance are based on research that examined the effects of these variables on recall. Therefore, it is necessary to examine the effects of processing goal and level of information inconsistency on recall. One goal of this research is to replicate the results of the studies that manipulated processing goal and examined the differential recall of subsequent consistent/inconsistent

information (e.g. Srull, 1981: Experiment 1; Srull, Lichtenstein, & Rothbart, 1985: Experiments 5-7). Therefore, the following hypothesis is posited:

> Hypothesis 1: Recall of inconsistent information will be higher than recall of subsequent consistent information for individuals under an impression goal. There will be no differential recall for individuals under a memory goal.

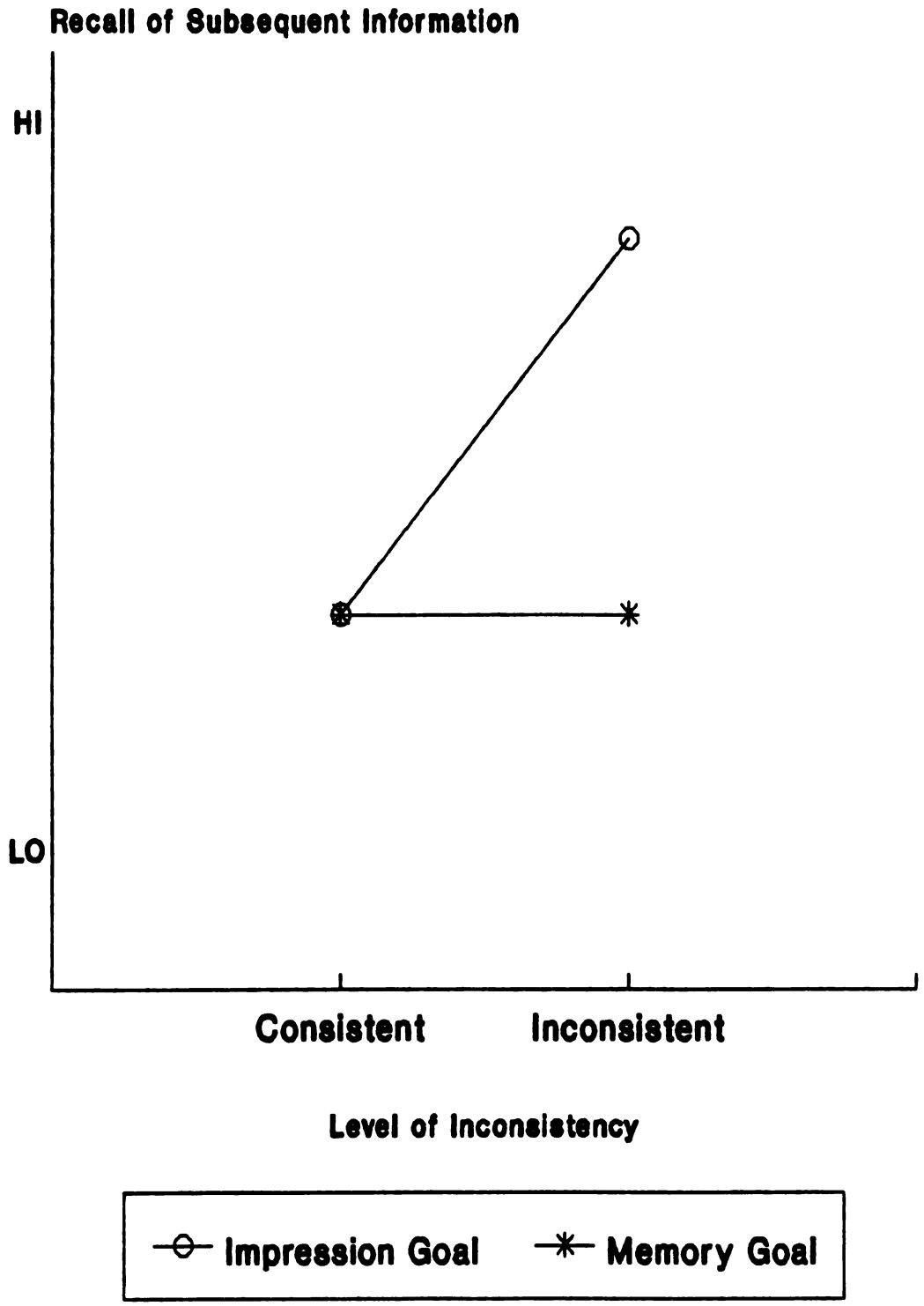
Figure 1 illustrates the proposed interaction effect of processing goal and information inconsistency on the recall of subsequent information.

Effects on Recall of Initial Information

It is also important to examine the recall of initial impression-forming information. The study by O'Sullivan and Durso (1984) pointed out the importance of examining the recall of this initial information. They suggested that subsequent inconsistent information was causing the initial impression-forming information to be reconsidered. It is also suggested that the reconsideration of the initial information results in an individual failing to modify the initial impression of the target even when presented with subsequent inconsistent information. To investigate this possibility, it is necessary to examine the effects of processing goal and level of information inconsistency on the recall of initial information. This leads to the following hypothesis:

FIGURE 1

Predicted Interaction between Processing Goal and Level of Inconsistency on Recall of Subsequent Information



> Hypothesis 2: Recall of initial information will be higher for the target whose subsequent information contained inconsistencies than for the target whose subsequent information did not contain inconsistencies, for individuals under an impression goal. There will be no difference in recall of initial information across targets for individuals under a memory goal.

Figure 2 illustrates the interaction effect of processing goal and level of information inconsistency on recall of initial information proposed by Hypothesis 2.

Effects on Ratings

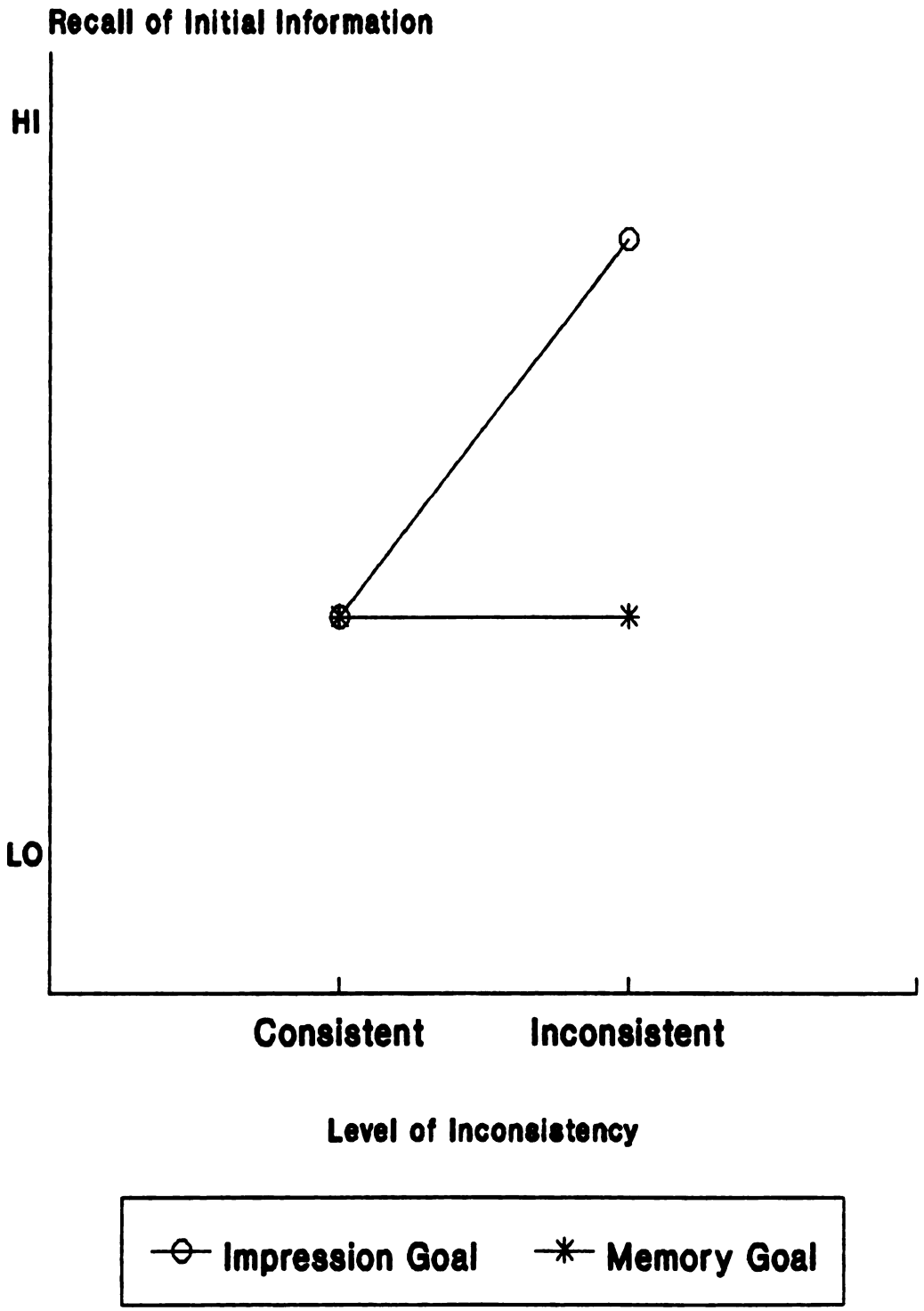
The findings which support the existence of a "perserverance effect" of initial impressions (Ross et al., 1975; Anderson et al., 1980; Sherman et al., 1983), and the findings which indicate that inconsistencies may actually cause initial information to be reconsidered (O'Sullivan & Durso, 1984) suggest the following hypothesis regarding the effects of processing goal and information inconsistency on subsequent judgments:

> Hypothesis 3: Ratings of a target whose subsequent information contains inconsistencies will differ based on the processing goal of the rater. That is, inconsistencies will lead to less of a modification in ratings under an impression goal than under a memory goal. There will be no difference in ratings across processing goals for the target whose subsequent information does not contain inconsistencies.

This hypothesis posits that a "perserverance effect" will occur when a target's subsequent information contains inconsistencies and when raters are under an impression goal. This "perserverance effect" is not expected to be as strong when the raters are under a memory goal. Thus,

FIGURE 2

Predicted Interaction between Processing Goal and Level of Inconsistency on Recall of Initial Information



ratings of the target with inconsistencies will differ according to processing goal. For example, assume that the initial information for a target indicates low performance. Subsequent inconsistent information about this target would indicate high performance. Hypothesis 3 posits that ratings under an impression goal will be lower than ratings under a memory goal (or, if initial information indicates high performance, ratings under an impression goal will be higher than ratings under a memory goal). Failure to modify an existing impression should be reflected in the ratings of individuals under an impression goal. This effect will not occur for the target whose subsequent information does not contain inconsistencies. Figure 3 illustrates the proposed effect of processing goal and information inconsistency on ratings when initial information indicates low performance. Figure 4 illustrates the corresponding predictions when initial information indicates high performance.

As is indicated by Figures 3 and 4, the initial performance level of the targets was varied in the present study (e.g. reflecting either good or poor performance). Previous studies have not varied performance level in one study. Thus, these studies could not determine if performance level has differential effects on the processing of performance information. Research on employment interviews suggests that interviewers place more weight on negative information than on positive information (e.g.

FIGURE 3

Predicted Effect of Processing Goal and Level of Inconsistency on Ratings when Initial Performance is Low

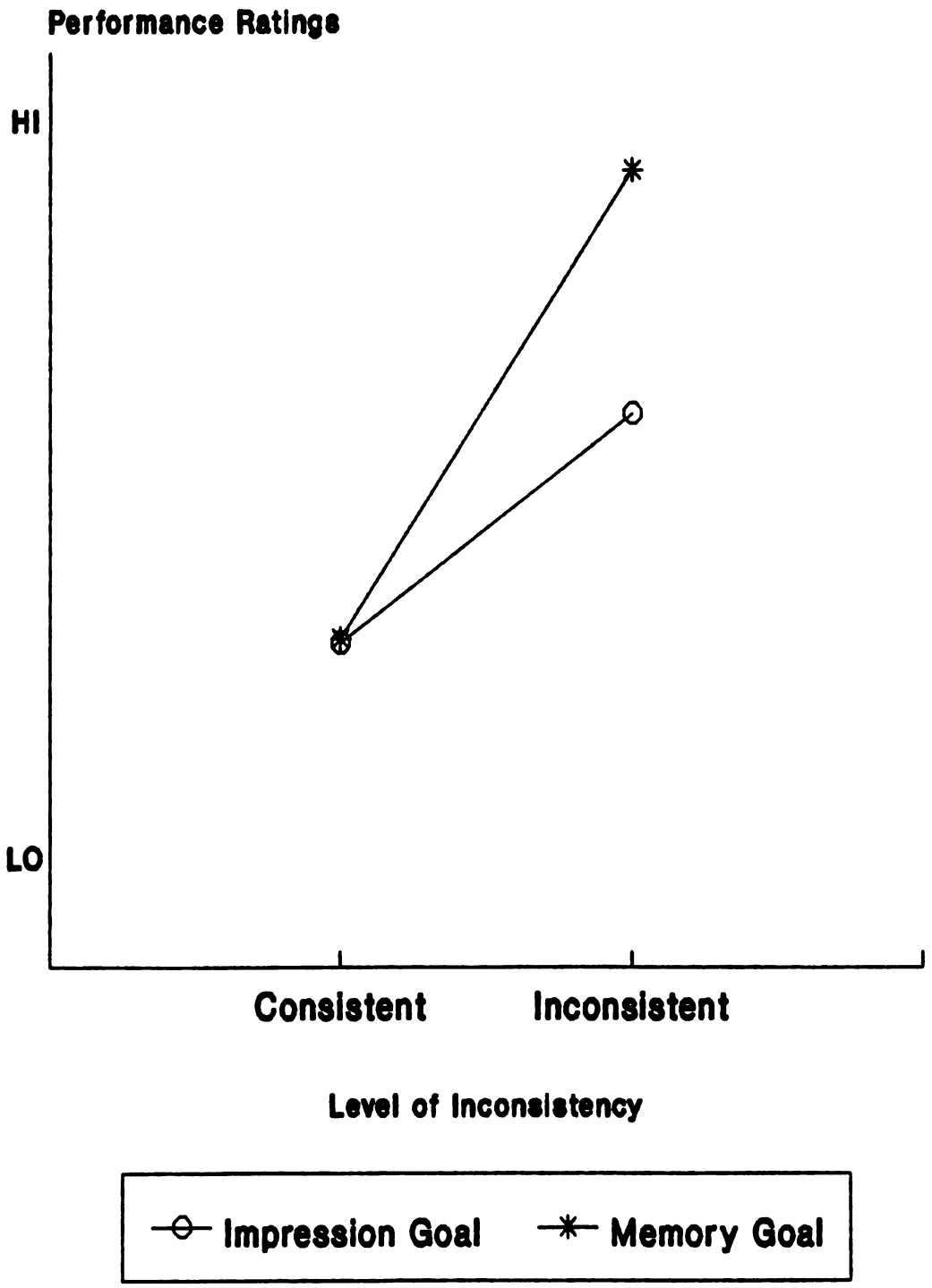
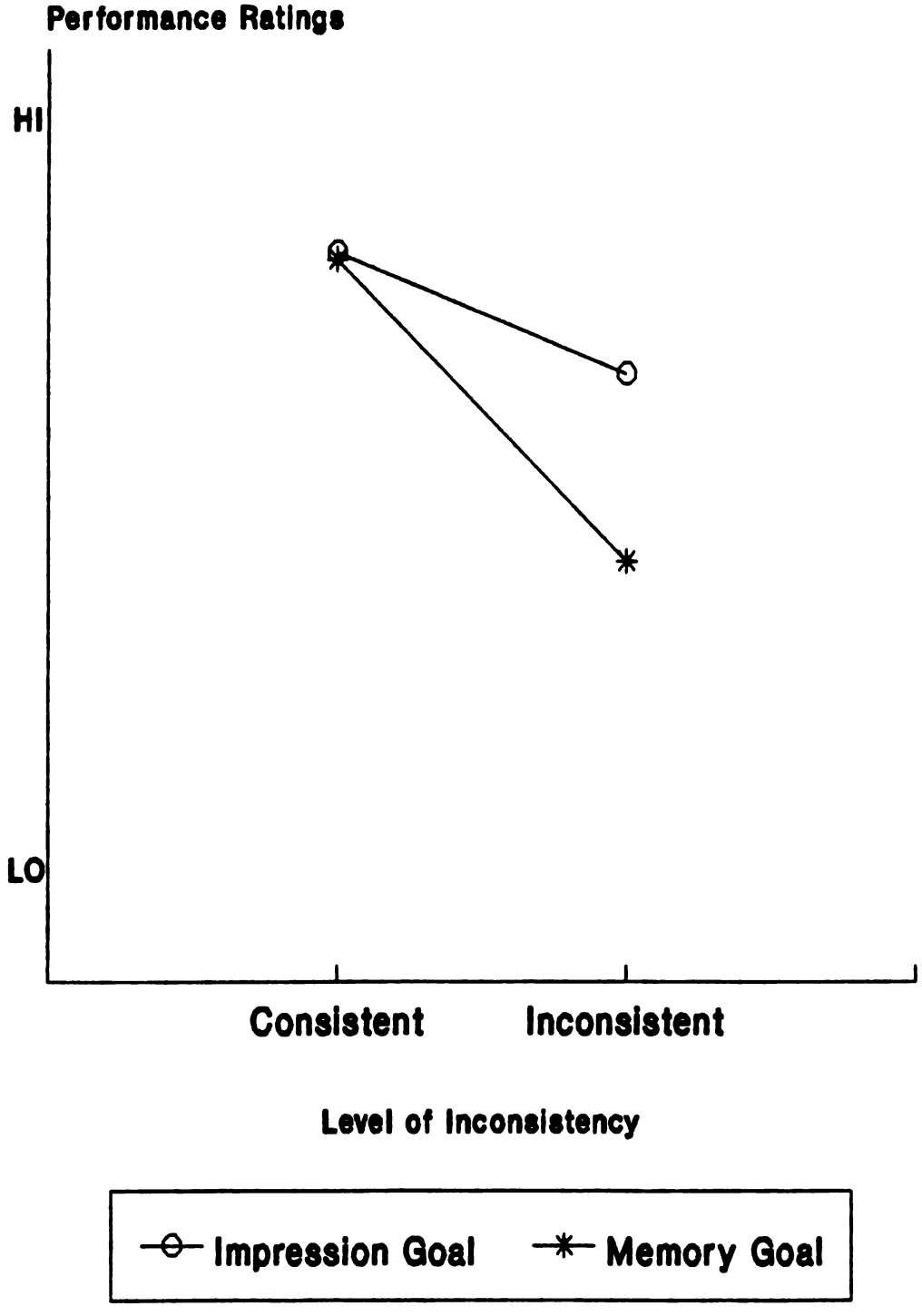


FIGURE 4

Predicted Effects of Processing Goal and Level of Inconsistency on Ratings when Initial Performance is High



Hollmann, 1972). This may result in a larger "perserverance effect" when initial information is negative, or less of an effect when initial information is positive (and/or greater recall of the negative information). This independent variable was included in order to determine if performance level has differential effects on either performance ratings or amount information recalled. However, given the exploratory nature of this variable, no formal hypotheses are proposed.

METHOD

Subjects

A power analysis was conducted with the assumptions of a medium effect size and an alpha level of .05. It indicated that a sample size of 160 would result in power of .80 (Cohen, 1988). One hundred seventy-eight (122 females, 56 males) introductory psychology students at a large midwestern university participated in the experiment. Subjects received nominal course credit for their participation. Five of the 178 subjects did not complete the recall measures correctly, and two did not complete the rating measures correctly. The data from these subjects were not included in the final analyses.

Design Parameters

The research design is a 2 X 2 X 2 factorial with two between-subject factors (processing goal and initial performance level of targets) and one within-subject factor (level of information inconsistency). Figure 5 presents an illustration of the cells of the proposed design.

Processing goal. Stimulus information was presented in the context of one of two processing goals. In the impression goal condition, subjects were told that the

FIGURE 5

Experimental Design

		Processing Goal	
		Impression	Memory
Initial Performance Level of Targets	High	(1) Consistent Target Inconsistent Target	(2) Consistent Target Inconsistent Target
	Low	(3) Consistent Target Inconsistent Target	(4) Consistent Target Inconsistent Target

purpose of the experiment was to examine how people form impressions of others, and how different modes of presenting information affect one's impression. They were told that they would be presented with several statements regarding the performance of two police officers, and that they should use this information to form an impression of the effectiveness of each officer's performance. They were told that they would be asked to make performance ratings based on this information. In the memory goal condition, subjects were told that the purpose of the experiment was to examine how people memorize information, and how different modes of presenting information affects what is memorized. They were presented with a series of statements regarding two police officers and were told to try to memorize the information as best as they can. They were told that they would be asked to recall these sentences as it was presented. A copy of the specific instructions given under each condition is in Appendix A.

Level of information inconsistency. Subjects were presented with performance information on two targets. Subjects were initially presented with 4 pieces of information for each target. All of this initial information was consistent for each target. In the subsequent information that was presented, level of information inconsistency differed across targets (i.e. subsequent information for each target either did or did not

contain inconsistencies). Subjects were presented with 6 pieces of subsequent information for each target. For one target, all six pieces of subsequent information were consistent with the initial information. For the other target, one-half (3 pieces) of the subsequent information was consistent with the initial information, and one-half (3 pieces) was inconsistent.

Initial performance level of targets. The initial performance information that was presented indicated that the targets were either good performers or poor performers. Half of the subjects received initial information that suggested that both targets were good performers, and half of the subjects received initial information that suggested that both targets were poor performers.

Stimulus Material

In developing the stimuli for this research, an occupation, police officer, was chosen for which subjects would have a general level of knowledge sufficient to distinguish successful from unsuccessful performance, but not an extensive job domain knowledge. Research has indicated that job domain knowledge affects the rating process (Kozlowski, Kirsch, & Chao, 1986) and the recall of consistent/inconsistent information (Fiske, Kinder, & Larter, 1983).

Performance information was in the form of critical incident statements. Each statement addressed a single

behavior corresponding to one of four performance dimensions: communication, demeanor, work attitude, and dealing with others. These statements, selected from Landy and Farr (1975), were scaled on a nine-point metric by a student sample (Kozlowski & Ford, in press). Incidents with mean ratings exceeding seven and falling below three were used to indicate high and low performance, respectively. For each of the two targets, a set of 10 statements (4 initial and 6 subsequent) were presented. In addition, because initial performance level of targets was manipulated, two sets of statements were complied for each target - one set when initial performance was high and one set when initial performance was low. These four sets of performance statements (2 for each target), along with the mean scale value and standard deviation of each statement, are presented in Appendix B. Previous research indicates (e.g. Srull, 1981; 1983; Stern et al., 1984) that the amount of information (20 behavioral statements) presented to individuals is a sufficient amount to allow for variability in recall, yet is not overburdening to subjects.

Procedure

Subjects were run in one of 16 groups (4 groups for each of the 4 experimental conditions). Groups consisted of 8-14 subjects. All subjects in each group were run under the same experimental condition. Each group was randomly assigned to one of the four experimental conditions (see

Figure 5).

Upon arrival to the experiment, subjects were asked to read and sign a consent form. A copy of the consent form is presented in Appendix C. The experimenter then explained the purpose of the experiment, and subjects were presented with both written and verbal instructions. The instructions explained to the subjects differed depending on whether subjects were assigned to an impression goal condition or to a memory goal condition. The specific instructions for each condition are found in Appendix A. In the impression goal conditions, subjects were instructed to use the information presented to form an evaluation of each police officer's performance, with the ultimate goal of completing performance ratings for each target. In the memory goal conditions, subjects were instructed to memorize the information that was presented, with the ultimate goal of recalling as much information as possible. All subjects, regardless of condition, were told that information would be presented on slides, and that they would have 6 seconds to view each slide. (Previous research indicates that 6 seconds is sufficient time to process these statements - e.g. Lichtenstein & Srull, 1987)

All subjects saw two example slides before the presentation of actual stimulus material. (EX: (1) Officer X is frequently charged with making false arrests. (2) Officer X behaves in a "just do the job" manner.) Individuals under

an impression goal were asked to use the example statements to make a rating of Officer X. Individuals under a memory goal were asked to recall these statements.

If subjects had no questions, the presentation of the initial stimulus information occurred. This information was presented one statement at a time through the use of a slide projector. Subjects had 6 seconds to view each slide. Order of presentation was randomized. Subjects were presented with initial information for two police officers. After presentation of this initial information, subjects in the impression goal conditions were asked to make initial ratings of the effectiveness of each target's performance. (This was to insure that these subjects have formed an impression before the presentation of inconsistent information.)

At this point in the experiment, subjects were asked to fill out a questionnaire relating to different modes of presenting information. This task was intended to act as an interference task between presentations of stimulus material. The interference task was included so that the presentation of the initial information would be distinct from the presentation of the subsequent information. This task took approximately 10 minutes to complete. A copy of this questionnnaire is presented in Appendix D.

Subjects were then presented with the subsequent stimulus information. Subjects were instructed to attend to

the information as they had earlier. The procedure for presenting this information was the same as for the initial information. Following the presentation of the second set of information, all subjects completed two measures. The order in which subjects filled out these measures was counterbalanced across subjects. Order of presentation was not expected to have a differential effect on ratings or recall. The measures described below are presented in Appendix E.

Dependent Measures

Performance ratings. Subjects were asked to use all the information that was presented to rate the effectiveness of each officer's performance. The rating form consisted of a 9 point Likert type scale (1=very ineffective performer, 9=very effective performer).

Recall measure. Subjects were asked to recall all of the information they could remember about each officer. They were instructed to try to recall this information as it was presented, but that they should also record what they could recall even if it was only the general meaning of the statement. Responses on the recall measure were coded according to a "general meaning" criterion by two judges blind to the experimental conditions. Coding consisted of determining whether each statement recalled by the subjects matched one of the statements that was presented. Because each performance statement described a very distinct

behavior, matching those recalled with those presented was self-evident. However, discretion was used by the judges to determine if the statement recalled actually portrayed the "general meaning" of what was presented. That is, a statement did not have to be word for word to be classified a match, it had to exhibit the same idea as the statement that was presented. For example, one statement that was presented was "Officer Red insults and bullies a father in front of his family". A statement recalled by one subject that was identified as a match to the previous statement was "Officer Red puts down a man in front of his family". One statement that was recalled which could not be matched to any of the statements that were presented was "Officer Blue doesn't take his job seriously". Although this idea was implicit in many of the statements that were presented, this statement could not be directly matched to one specific statement.

Of the total of 556 statements that were recalled, the two judges initially agreed that 507 statements matched one of the statements that was presented (interjudge agreement of 91%). Disagreements occurred when one judge adopted a more stringent decision rule than the other judge (i.e. was less willing to classify the recalled statement as a "match"). Subsequent consensus reflected the more stringent decision rule.

The statements that were recalled were classified into

one of six categories: (1) target 1-initial, (2) target 2-initial, (3) target 1-subsequent, (4) target 2-subsequent/consistent, (5) target 2-subsequent/inconsistent, and (6) mismatch (statements attributed to the wrong target) or intrusion. The two judges agreed completely (100%) on the classification of the recalled statements into one of these six categories.

Completion of the measures above marked the conclusion of the experiment, at which time subjects were fully debriefed regarding the nature of the experiment, and any questions they had about the experiment were answered. A copy of the debriefing statement given to subjects at the completion of the experiment can be found in Appendix F.

RESULTS

Initial analyses were conducted to determine if testing order (recall-ratings vs. ratings-recall) had any effects on the dependent variables. This factor, which was counterbalanced across subjects, did not have a significant effect on any of the dependent variables nor did it enter into any interactions. A summary of the analyses with testing order as an independent variable is presented in Appendix G. Subsequent analyses were made without testing order as an independent variable.

To determine if a separate analysis of variance (ANOVA) for each dependent variable was justified as a research strategy, a test for multicollinearity was conducted by examining the correlations between dependent variables. These correlations are presented in Table 1. Also included in Table 1 are the means and standard deviations of the dependent variables. (The rating variables are further defined according to initial performance level since collapsing over this variable would yield means and standard deviations that are uninterpretable.) The correlations between dependent variables are quite low suggesting that separate analyses are warranted.

Table 1

Means, Standard Deviations and Intercorrelations Between Dependent Variables

Variable	Mean	SD	Correlations 1	2	3	4	5	6
1. Rating1[a]			-					
HI perf	7.77	1.27						
LO perf	2.20	2.11						
2. Rating2			.21	-				
HI perf	5.24	2.06						
LO perf	4.48	1.28						
3. Initial1[b]	.84	.85	-.05	-.19	-			
4. Initial2	1.01	1.08	-.18	-.23	.34	-		
5. SubCon[c]	1.40	.90	.10	-.01	.18	.21	-	
6. SubIncon	1.87	.92	.38	-.05	.12	.12	.23	-

[a]Rating1 = Performance ratings of target with no inconsistent information (Target 1/Red)
Rating2 = Performance ratings of target with inconsistent information (Target 2/Blue)

[b]Initial1 = Initial information recalled for target with no inconsistent information (range = 0-3)
Initial2 = Initial information recalled for target with inconsistent information (range = 0-3)

[c]SubCons = Subsequent/consistent information recalled for target with inconsistent information (range = 0-3)
SubIncon = Subsequent/inconsistent information recalled for target with inconsistent information (range 0-3)

Recall

To test hypotheses 1 and 2, the amount of subsequent consistent/inconsistent information recalled and the amount of initial information recalled were analyzed with a 2 X 2 X 2 analysis of variance (two between-subject factors: processing goal and initial performance level and one within-subject factor: level of inconsistency). The results of the ANOVA summarized in Table 2 are described below.

Subsequent information. Because this analysis was concerned with the differential recall of subsequent consistent/inconsistent information, only recall regarding the target whose subsequent information contained inconsistencies (Target 2/Officer Blue) was included in this analysis. That is, the variable "level of inconsistency" refers to how subsequent information inconsistency varied within a single target (pieces of information were either consistent or inconsistent).

The results of the analysis regarding the amount of subsequent consistent/inconsistent information recalled are summarized in column 3 ("Subsequent Information") of Table 2. The results revealed significant main effects for processing goal, initial performance level, and level of inconsistency. Two interactions were also significant: the processing goal by level of inconsistency interaction, and the initial performance level by level of inconsistency interaction. Means and standard deviations for amount of

Table 2

ANOVA Summary for Recall Variables

Source	df	F-values for Recall Variables: Subsequent Information	F-values for Recall Variables: Initial Information
Processing Goal (G)	1	13.05***	7.95**
Initial Performance Level (P)	1	26.75***	3.53
G X P	1	1.27	.87
Within (S/GP)	169	(.86)	(1.17)
Level of Inconsistency (I)	1	33.42***	3.24
G X I	1	3.95*	4.43*
P X I	1	10.04**	2.85
G X P X I	1	.00	6.36**
Within (IS/GP)	169	(.58)	(.61)

Note: Values in parentheses represent mean squares terms.

*p < .05

**p < .01

***p < .001

subsequent information recalled are reported in Table 3.

Hypothesis 1 predicted an interaction between processing goal and level of inconsistency. The results indicated that this interaction was significant and was in the direction predicted. More subsequent inconsistent information was recalled under an impression goal ($\underline{M}$ = 2.11) than under a memory goal ($\underline{M}$ = 1.63) [$\underline{t}_{(1,171)}$ = 3.48, $\underline{p}$ < .01). However, recall of subsequent consistent information did not differ across processing goals ($\underline{M}$ = 1.49 and 1.31 for impression and memory goals, respectively, $\underline{t}_{(1,171)}$ = 1.30, $\underline{p}$ > .05).

No hypotheses were made regarding the effects of initial performance level. However, results revealed a significant interaction between initial performance level and level of inconsistency. The results indicated that when subsequent information was consistent, recall was not significantly different across performance level ($\underline{M}$ = 1.52 & 1.28 for high and low initial performance, respectively, $\underline{t}_{(1,171)}$ = 1.78, $\underline{p}$ > .05). However, when subsequent information was inconsistent, information indicating poor performance ($\underline{M}$ = 2.25) was recalled at a higher rate than information indicating good performance ($\underline{M}$ = 1.51) [$\underline{t}_{(1,171)}$ = 5.79, $\underline{p}$ < .01].

Initial information. This analysis was concerned with how recall of initial information differed when a target's performance information contained inconsistencies versus

Table 3

Means and Standard Deviations[a] for Amount of Subsequent Information Recalled

	Initial Performance Level		
Processing Goal	High	Low	Total
	Inconsistent Information		
Memory	1.96(.93)	1.29(.89)	1.63(.97)
Impression	2.50(.50)	1.70(.81)	2.11(.81)
Total	2.25(.82)	1.51(.87)	1.87(.92)
	Consistent Information		
Memory	1.38(.91)	1.24(.99)	1.31(.96)
Impression	1.69(.80)	1.32(.88)	1.49(.84)
Total	1.52(.87)	1.28(.92)	1.40(.90)

[a]Values in parentheses are standard deviations

when a target's performance information contained only consistent information. That is, the variable of "level of inconsistency" refers to how information inconsistency varies across targets (a target's subsequent information does or does not contain inconsistencies).

The results regarding the amount of initial information recalled are summarized in column 4 ("Initial Information") of Table 2. The results revealed a significant main effect for processing goal. Two interactions were also significant: the processing goal by level of inconsistency interaction, and the processing goal by initial performance level by level of inconsistency interaction. Means and standard deviations for the amount of initial information recalled are reported in Table 4.

Hypothesis 2 predicted an interaction between processing goal and level of inconsistency. The results indicated that this interaction was significant and was in the direction predicted. That is, under an impression goal, recall of initial information was higher for the target with inconsistent information ($\underline{M}$ = 1.28) than for the target with only consistent information ($\underline{M}$ = .92) [$\underline{t}_{(1,85)}$ = 2.73, $\underline{p}$ < .01]. However, under a memory goal, recall of initial information for the target with inconsistent information ($\underline{M}$ = .77) did not differ from the target with only consistent information ($\underline{M}$ = .75) [$\underline{t}_{(1,85)}$ = 0.21, $\underline{p}$ > .05].

Table 4

Means and Standard Deviations[a] for Amount of Initial Information Recalled

	Initial Performance Level		
Processing Goal	High	Low	Total
Target with Inconsistencies			
Memory	.62 (.81)	.88(1.11)	.75 (.98)
Impression	1.03(1.11)	1.49(1.10)	1.28(1.12)
Total	.81 (.82)	1.20(1.14)	1.01(1.08)
Target with No Inconsistencies			
Memory	.57 (.72)	.97 (.90)	.77 (.83)
Impression	1.05 (.86)	.81 (.88)	.92 (.87)
Total	.79 (.82)	.89 (.89)	.84 (.85)

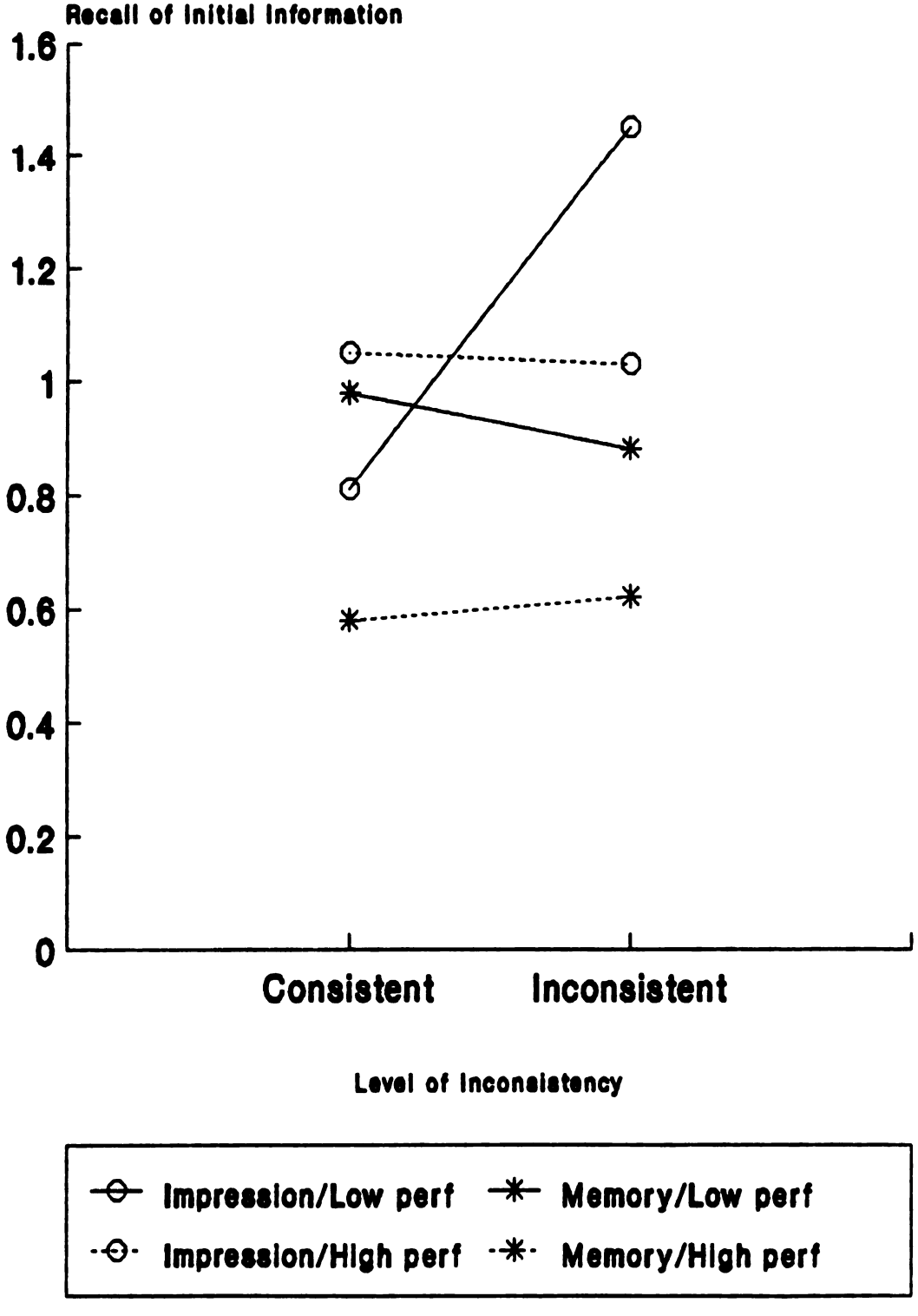
[a]Values in parentheses are standard deviations

The results also indicated a three-way interaction between processing goal, initial performance level, and level of inconsistency. The form of this interaction is depicted in Figure 6. When initial performance level was low, the interaction between processing goal and level of consistency was as predicted. That is, recall of initial information differed for the target with inconsistent information such that more information was recalled under an impression goal ($\underline{M}$ = . 1.49) than under a memory goal ($\underline{M}$ = 0.88) [$\underline{t}_{(1,87)}$ = 2.59, $\underline{p}$ < .05]. Recall for the target with no inconsistent information did not differ across processing goal ($\underline{M}$ = 0.81 and 0.97 for impression and memory goals, respectively, $\underline{t}_{(1,87)}$ = - 0.89, $\underline{p}$ > .05).

When initial performance level was high, results differed slightly from what was predicted. As was predicted, more initial information was recalled under an impression goal ($\underline{M}$ = 2.01) than under a memory goal ($\underline{M}$ = 1.20) [$\underline{t}_{(1,82)}$ = 2.60, $\underline{p}$ < .05]. However, contrary to predictions, individuals under an impression goal did not recall more initial information for the target with inconsistencies ($\underline{M}$ = 1.03) than for the target with no inconsistencies ($\underline{M}$ = 1.05) [$\underline{t}_{(1,38)}$ = - 0.18, $\underline{p}$ > .05], rather initial information was recalled at the same rate for both targets.

FIGURE 6

Processing Goal x Initial Performance Level x Level of Inconsistency Interaction for Recall of Initial Information



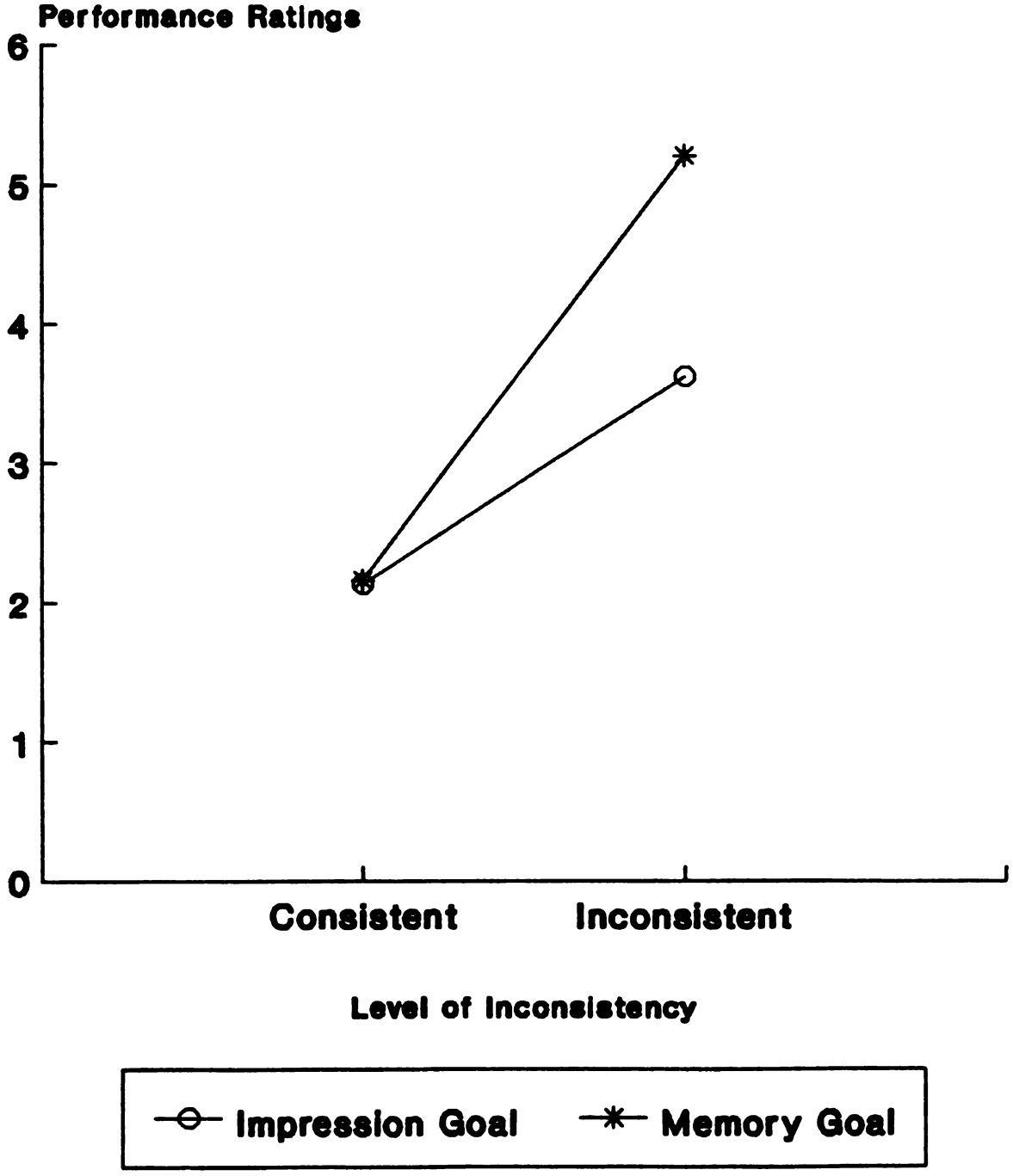
Performance Ratings

To test hypothesis 3, performance ratings were analyzed with a 2 X 2 analysis of variance (one between-subject factor of processing goal and one within-subject factor of level of inconsistency). Two separate ANOVAs were used to analyze the effects of performance ratings: the first when initial performance level was low, the second when initial performance level was high. These analyses were conducted separately because of the effect that initial performance level has on ratings (i.e. when initial information is low, targets should be rated lower overall, and when initial information is high, targets should be rated higher overall).

When initial performance level was low, the results revealed significant main effects for both independent variables: processing goal ($F_{(1,88)}$ = 8.09, p < .01) and level of inconsistency ($F_{(1,88)}$ = 119.70, p < .001). The interaction between processing goal and level of inconsistency was also significant ($F_{(1,88)}$ = 14.11, p < .001). This observed interaction is illustrated by Figure 7. Comparison of Figure 7 (observed results) with Figure 3 (predicted results) shows that the observed results mimic the predicted results. That is, when initial performance level was low, the performance ratings of the target whose information was consistent were not affected by processing goal (M = 2.13 and 2.16 for impression and memory goals,

FIGURE 7

Observed Interaction of Processing Goal and Level of Inconsistency on Ratings when Initial Performance is Low

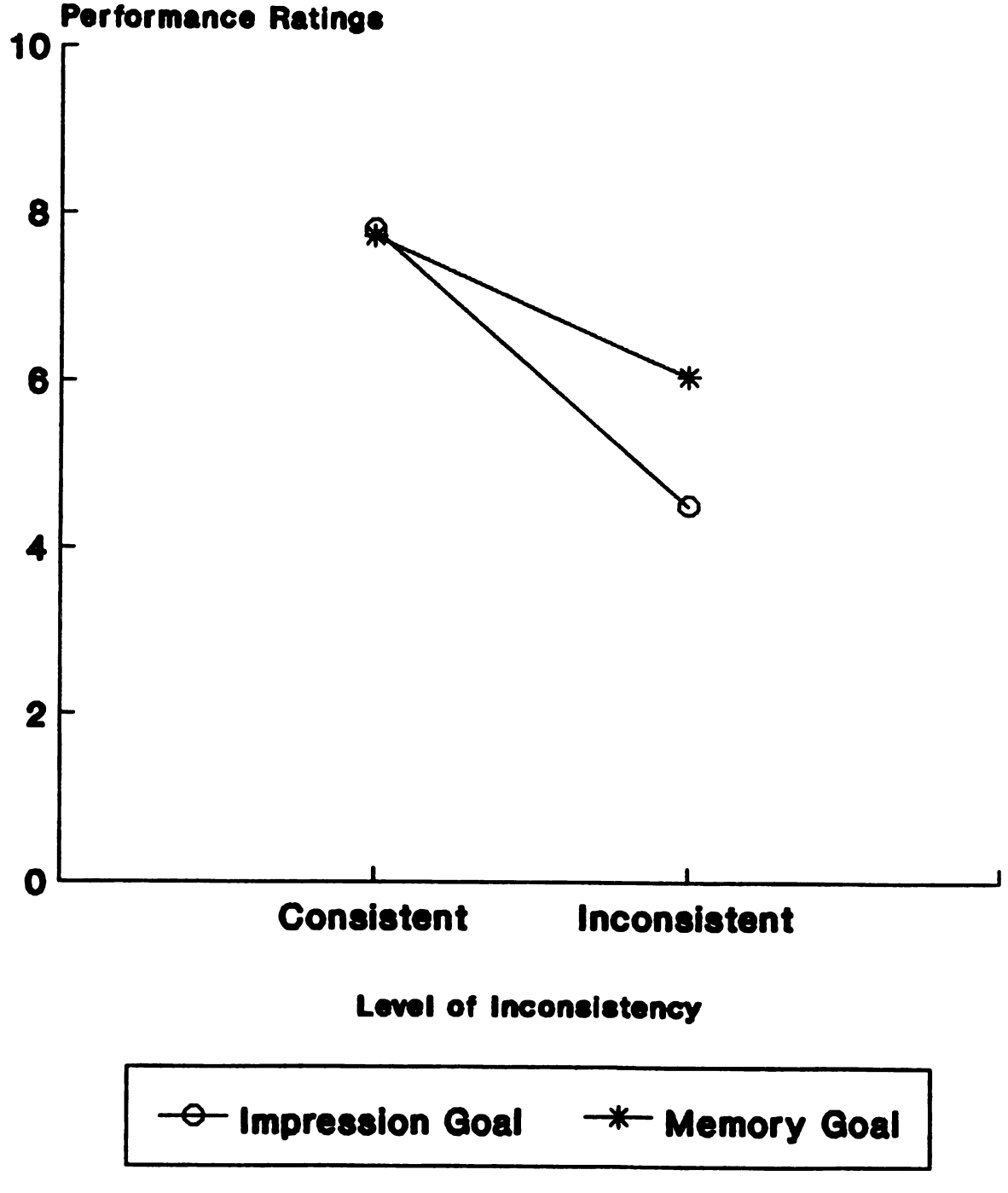


respectively, $t_{(1,88)} = -0.13$, $p > .05$). However, the performance ratings of the target with inconsistent information was affected by processing goal. The target was rated lower under an impression goal ($M = 3.62$) than under a memory goal ($M = 5.21$) [$t_{(1,88)} = -3.77$, $p < .01$].

When initial performance level was high, the results also revealed significant main effects for both independent variables: processing goal ($F_{(1,84)} = 9.52$, $p < .01$) and level of inconsistency ($F_{(1,84)} = 94.35$, $p < .001$). The interaction between processing goal and level of inconsistency was also significant ($F_{(1,84)} = 9.84$, $p < .001$). This observed interaction is illustrated by Figure 8. Comparisons of Figure 8 (observed results) with Figure 4 (predicted results) shows that the observed results did not completely conform to the predicted results. The performance ratings of the target whose information was consistent were as predicted (the ratings were not affected by processing goal, $M = 7.80$ and 7.73 for impression and memory goals, respectively, $t_{(1,84)} = 0.25$, $p > .05$). However, the observed ratings of the target with inconsistent information were opposite to what was predicted. That is, it was hypothesized that this target would be rated higher under an impression goal than under a memory goal. The results indicate that the reverse occurred. The target actually was rated higher under a memory goal ($M = 6.05$) than under an impression goal ($M = 4.51$) [$t_{(1,84)} = -3.74$, $p < .01$].

FIGURE 8

Observed Interaction of Processing Goal and Level of Inconsistency on Ratings when Initial Performance is High



DISCUSSION

The purpose of this research was to examine the effects of processing goal and level of information inconsistency on the processing of performance information. The first objective of this research was to replicate previous findings concerned with the effects of processing goal and level of inconsistency on recall. The second objective was to extend the research to the area of performance appraisal by examining the effects of these variables on performance ratings. These objectives are reviewed in the following discussion. First, the results of the present study are examined and in relation to the hypothesized results. The implications of the results for theory and research in performance appraisal are then discussed. Finally, the potential limitations of the study and directions for further research are presented.

Summary of Results

It was proposed that processing goal and level of information inconsistency would interact to affect three different dependent variables (recall of subsequent information, recall of initial information, and performance ratings). Three separate hypotheses were made regarding

each dependent variable. The following sections examine the extent to which the observed results support each of these hypotheses.

Effects on recall of subsequent information. One goal of this research was to replicate the results of the studies that manipulated processing goal and examined the differential recall of subsequent consistent/inconsistent information (e.g. Srull, 1981: Experiment 1; Srull, et al., 1985: Experiments 5-7). It was hypothesized that recall would be greatest when subsequent information was inconsistent and when individuals were under an impression goal (Hypothesis 1). The data support this hypothesis, thus, lending even greater support to the previous literature by extending the results from the area of social cognition to the area of performance appraisal.

An additional finding of this research concerned the interactive effect of initial performance level and level of inconsistency on recall of subsequent information. The results showed that when subsequent inconsistent information indicated poor performance, it was recalled at a higher rate than when it indicated good performance. However, subsequent consistent information was recalled at the same rate across performance levels. This finding suggests an elaboration of the Hastie (1980) associative network model. This model states that inconsistent information is recalled at a higher rate because the difficulty in encoding

inconsistent information leads to a greater number of associative paths being formed during the encoding process. The results of the present research suggest that inconsistent information that is negative is even more difficult to encode than positive inconsistent information. Thus, the greatest number of associative paths are formed (and recall is the greatest) when information is inconsistent and when it indicates poor performance. This idea is also consistent with the research on employment interviews which suggests that interviewers place more weight on negative information than on positive information (e.g. Hollman, 1972). However, the present study further qualifies the research by suggesting that only when this negative information is inconsistent with the initial positive information will it be weighted higher.

Effects on recall of initial information. As was suggested by O'Sullivan and Durso (1984), it was hypothesized that subsequent inconsistent information would cause individuals under an impression goal to reconsider the initial impression-forming information. Hypothesis 2 proposed that recall of initial information would be greatest for the target whose subsequent information contained inconsistencies and when individuals were under an impression goal. The support for this hypothesis is qualified since a third variable (initial performance level) interacted with processing goal and level of inconsistency

to affect recall of initial information.

The data show that when initial performance level was low, the results were as hypothesized. However, when initial performance level was high, the initial information for both targets (one with inconsistencies and one without inconsistencies) was recalled at the same high rate by individuals under an impression goal. These results suggest that, when individuals are under an impression goal, subsequent inconsistent information (which indicates poor performance by an initially good performer) possibly leads to a reconsideration of all initial information. These results compliment the discussion above which suggests that the greatest number of associative paths are formed for inconsistent information indicating poor performance. Subsequent information indicating poor performance by an initially good performer may be so difficult to encode that all initial information is reconsidered, leading to more associative links between the initial information and the subsequent negative information. The greater number of links facilitated recall of both the initial information and the subsequent negative information.

The effects of processing goal and level of inconsistency on recall of initial information were examined, in part, to provide support for the hypothesis dealing with the effects of these variables on performance ratings. It was suggested that reconsideration of the

initial impression-forming information would cause individuals under an impression goal to fail to modify their initial impression. Thus, the mixed support for Hypothesis 2 has implications for the following hypothesis and will be discussed in further detail below.

Effects on performance ratings. Hypothesis 3 focused on the effects of processing goal and level of inconsistency on performance ratings. Based on the research on "perserverance effects" in social judgments (Ross et al., 1975; Anderson et al., 1980; Sherman et al., 1983), and the research on the reconsideration of initial impression-forming information (O'Sullivan & Durso, 1984), it was hypothesized that individuals under an impression goal would fail to modify their initial impression of a target whose subsequent information contains inconsistencies.

Support for Hypothesis 3 was mixed. When initial performance level was low, the data supported the hypothesis. Because initial impressions influenced the ratings under an impression goal (perserverance effect), the target with inconsistent information was rated lower under an impression goal than a memory goal. However, when initial performance level was high, the results were opposite to what was predicted. Due to a perserverance effect, it was predicted that the target would be rated higher under an impression goal than under a memory goal. The results indicated that the target actually was rated

lower under an impression goal than under a memory goal.

Interpretation of Results

The results involving performance ratings as well as the results involving recall indicate that performance level is clearly having an impact on the processing of performance information. When initial performance level was low, the results for all three dependent variables were as hypothesized. Only when initial performance level was high, did the results differ from the hypothesized results. Results from all three dependent variables suggest that the processing of the performance information is different than hypothesized when initial performance indicates good performance. One explanation for these findings is that, when faced with inconsistencies, raters under an impression goal are weighting good and poor information differently than raters under a memory goal. It is important to point out, however, that these differences only occurred when the target's information contained inconsistencies. When the target's information was consistent no differences in weighting occurred. This target was rated exactly the same by all raters when performance level was high and when performance level was low.

The results of this research suggest that information indicating poor performance is given much more weight by raters under an impression goal. When the initial information indicated poor performance, subsequent good

performance did not lead to a change in the initial impression (perserverance effect of initial poor performance). However, when initial information indicated good performance, subsequent poor performance led to the initial impression being modified. Subsequent poor performance also led to the reconsideration of all initial information (perhaps as an attempt to verify one's change in initial impression).

The results also suggest that information indicating good performance is given much more weight by raters under a memory goal. This is attested by the fact that when initial performance was both high and low, the target was rated higher by raters under a memory goal than by raters under an impression goal. As hypothesized, when initial performance was low, raters under a memory goal were more willing to use subsequent inconsistent information indicating good performance. The result being a higher rating than under an impression goal. However, when initial performance was high, raters under a memory goal were less willing to use subsequent inconsistent information indicating poor performance. The result being that ratings were much higher than was predicted. In conclusion, it appears that if individuals thought the purpose of the task was to memorize the information, when they were later asked to make ratings, they gave less weight to negative information, resulting in more lenient ratings. However, when individuals thought the

purpose of the task was to use the information to make ratings, they gave more weight to negative information, resulting in less lenient ratings. The implications of these findings and the other findings are discussed in detail in the following section.

Implications of results

The most striking result of the present research is that, even though all raters were presented with the same information upon which to base their ratings, the target with inconsistent information was rated differently by raters under different processing goals. In addition, the amount and type of information that was recalled differed greatly across processing goals. These results have a number of important implications to the research and practice of performance appraisal.

The results can be reviewed in terms of the performance appraisal model proposed by DeNisi et al. (1984). This model suggested that there are factors which affect the processing of performance information. This study provides support for this model. Results indicate that three contextual variables (processing goal, level of information inconsistency, and initial performance level) interact to affect retrieval of performance information and the evaluations that are based on this performance information. In addition, the social cognition literature suggests that the link between the contextual variables and subsequent

recall and judgments is actually mediated by the processing variables of encoding and storage. That is, the contextual variables lead to differences in encoding and storage which, in turn, lead to the observed differences in recall and judgments.

A second implication of the present research concerns the many different situations in which performance appraisals may occur. Researchers should be aware that performance ratings will differ depending on whether they are made on-line (impression-based) or computed from the information in memory at the time of the evaluation (memory-based). Efforts should be taken to identify what conditions cause ratings to be memory-based and which conditions cause ratings to be impression-based. As was indicated earlier, recent research has examined the correlations between recall and ratings to determine if the ratings are impression or memory-based (DeNisi et al., 1989; Williams et al., 1990). DeNisi et al. (1989) were able to identify a number of situations in which evaluations were impression-based (e.g. when the purpose of evaluation was to indicate how deserving each ratee was for a raise), and a number of situations in which evaluations were memory-based (e.g. when the purpose was to determine which ratee would receive the raise). The results of the present research suggest that, if the ratings were based on the exact same information and this information contained inconsistencies, the ratings would

differ based on the conditions under which they are made. In addition, the information that is recalled will also differ (leading to the information used in performance feedback to be different).

If researchers were able to identify whether the ratings were impression or memory-based, then they would be able to determine the way in which the performance ratings are being biased. The present research indicates that very little information was recalled when raters were under a memory goal, and that any distortions in ratings were most likely the result of memory biases. The results also seem to suggest that raters under a memory goal gave less weight to negative information, in fact, it appeared as if they gave more weight to positive information. A possible explanation for this finding concerns the amount and type of information that was recalled by these individuals. For the target with inconsistencies, even less initial information ($\underline{M}$ = .74) than subsequent information ($\underline{M}$ = 2.94) was recalled. If the ratings of those under a memory goal are based only on the information that is recalled, then these ratings are based primarily on subsequent information. This subsequent information, half of which indicated poor performance and half of which indicated good performance regardless of initial performance level, was not differentially recalled based on its inconsistency. Thus, it can be concluded that a recency effect in recall may have

caused the ratings under a memory goal to appear more lenient. That is, biases in memory (raters are only able to recall recent information) may have possibly led to distortions in the performance ratings. The implication is that, under conditions when evaluations are memory-based, efforts should be taken to insure that raters are using more than the most recent performance upon which to base their ratings.

Results showed that recall of subsequent inconsistent information was higher under an impression than under a memory goal, suggesting that memory (or retrieval) biases are not occurring under an impression goal. It is most likely that biases under an impression goal occur when information is encoded and stored in memory. For instance, when initial performance level was low, less modifications in the initial impression were made by raters under an impression goal. Efforts can be taken to make raters aware of the biases that can occur when they are faced with inconsistent information (e.g. perserverance of initial impression causing them to disregard the inconsistent information).

Another implication of these findings concern how raters deal with information that indicates good versus poor performance. When faced with inconsistencies, raters under an impression goal gave more weight to information indicating poor performance. This finding was consistent

with the research on employment interviews which also found that more weight was given to negative information (Hollmann, 1972). It is suggested that raters believe negative information has greater diagnostic value, and thus is given more weight. However, the belief that negative information is more important may lead to very large distortions in ratings. Not only is negative information weighted more in evaluations, but, as is indicated by Kozlowski and Ford (in press), raters may also actively search out incidents of poor performance. The implication is that the raters' processing of performance information will be inefficient because they spend so much time searching for and processing the negative information, while disregarding information indicating good performance.

Limitations of the Study

There are limitations to the generalizability of the present research which have implications for future research. First, the conditions under which evaluations were memory-based versus impression-based were artifically created by the researcher. They were also manipulated so that the condition was either one or the other. It is likely that these different conditions do occur in the context of performance appraisal. In fact, because supervisors usually observe their subordinates over a long period of time (six months to a year), it is likely that they switch from goal to goal throughout the process of

acquiring performance information. As was indicated previously, future research should try to identify when evaluations are primarily impression-based and when they are primarily memory-based. For instance, when a supervisor's job is very complex and other duties take up a large portion of their time, time pressures may cause them to have to make evaluations that are primarily memory-based (i.e. they would not have time to form an impression as information is acquired). In addition, future research should examine how the amount of delay between the acquisition of (1) initial and subsequent information and (2) the information and the ratings affects the processing of performance information.

A second limitation of the present research is that the performance information was given to the raters. Raters were not actively able to acquire information about each target. It has been suggested that assigning the rater to the role of passive receiver limits the generalizability of the present research (Kozlowski & Ford, in press). Recent research has employed the process-tracing methodology so that raters may be allowed to actively search for performance information. If biases in performance ratings are occurring at the acquisition and encoding stages as was suggested above, then future research should be directed towards examining how processing goal, inconsistent information, and performance level affect the search for subsequent performance information.

Another limitation on the generalizability of the present research concerns the operationalization of "inconsistency". The initial information that was presented unequivocally portrayed the target as either a very good or a very poor performer. Subsequent inconsistent information was made to be evaluatively opposite to the initial information (i.e. if initial information indicated good performance then inconsistent information indicated poor performance). However, this is only one way that inconsistency may be operationalized (e.g. initial information could indicate both good and poor performance, and inconsistent information would indicate only poor performance). Further research is needed to determine if the effects found in the present research will generalize to other operationalizations of inconsistency.

Finally, the present research only examined how a constant number of inconsistent pieces of information affected performance ratings. Results showed that three pieces of inconsistent information caused raters under an impression goal to modify their initial impression when the inconsistent information was negative, but to fail to modify when the inconsistent information was positive. Future research should be directed at determining how little negative information causes a modification in initial impression, and how much positive information is needed before a modification is made in the initial impression.

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APPENDICES

APPENDIX A

Instructions for Processing Goal Conditions

APPENDIX A

Instructions for Processing Goal Conditions

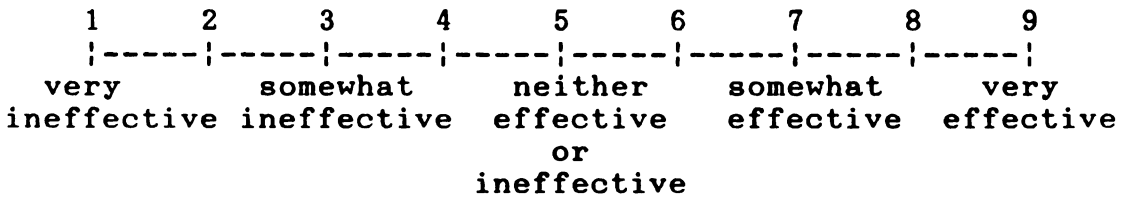
PERFORMANCE EVALUATION TASK

Instructions:

The purpose of this experiment is to examine how people form impressions of others. We are also interested in how different ways of presenting information affects the impression that is formed. For instance, some ways of that information can be presented are with print, pictures, or video, etc.

You are going to be presented with a number of slides which contain a series of statements. These statements concern the performance of two police officers. You are to use these statements to form an impression of the performance of two police officers. You will be presented with four (4) pieces of information about each officer. After presentation of this information you will be asked to rate the effectiveness of each officer's performance.

You will use a scale like the one below to make your ratings of the effectiveness of each officer's performance.



Before we begin the actual experiment let's do an example. Please attend to the following slides.

Now, use the rating scale above to rate the effectiveness of Officer X's performance. Circle the number on the scale above which corresponds to your rating.

Again, your task is to form an impression of each officer so that you can make a rating of his/her performance.

Are there any questions before we begin?

SENTENCE MEMORIZATION TASK

Instructions:

The purpose of this experiment is to examine how people memorize information. We are also interested in how different ways of presenting information affects what is memorized. For instance, some ways of that information can be presented are with print, pictures, or video, etc.

In this experiment, you are going to be performing in a memorization task. You are going to be presented with a number of slides which contain a series of statements. There are eight (8) slides, each of which contains a sentence that you are to memorize as best as you can. You will later be asked to recall each sentence as it was presented to you.

Before we begin the actual experiment let's do an example. Please attend to the following two slides.

Write in the space below the statements that you were just presented. Try to recall the important aspects of each sentence.

EXAMPLE:

_____

_____

_____

_____

Now, as the experimenter reads back the statements, check what you have written.

Because memorizing 8 sentences may be difficult, all of the sentences will concern two police officers. We hope that grouping the sentences this way might help you to memorize the information.

Again, at a later point in this experiment you will asked to recall each sentence as closely as possible.
Are there any questions before we begin?

APPENDIX B

Stimulus Material: Performance Information

APPENDIX B

Stimulus Material: Performance Information

PERFORMANCE STATEMENTS FOR OFFICER RED (consistent/high perf)

Initial Statements

Item	Mean	SD
Officer Red always gets to the station in time to check the daily log	7.53	1.65
Officer Red turns in reports that are neat, accurate, and well written	8.00	1.44
Officer Red does what is assigned and occasionally initiates own activities	7.47	1.33
Officer Red maintains friendly relations with the civilians in the patrol area	8.37	0.89

Subsequent Statements

Item	Mean	SD
Officer Red answers urgent calls from other precincts when necessary	7.67	1.18
Officer Red remains cool under any circumstances	8.00	1.49
Officer Red has a highly developed vocabulary and uses it appropriately	7.37	1.63
Officer Red is very polite and understanding while in contact with the public	8.00	1.26
Officer Red takes the time necessary to establish friendly relations with the public such as showing youth in the patrol area the patrol car, the equipment, and answering questions	7.77	1.45
Officer Red is considered a "friend to everyone" during the watch or shift	7.10	1.71

PERFORMANCE STATEMENTS FOR OFFICER RED (consistent/low perf)

Initial Statements

Item	Mean	SD
Officer Red disappears when a dangerous situation occurs.	1.40	0.62
Officer Red uses choppy, incomplete language in written reports	2.77	1.41
Officer Red gripes a great deal and considers the work to be just a job	2.37	1.43
Officer Red always riles fellow officers through actions and remarks	2.20	1.16

Subsequent Statements

Item	Mean	SD
Officer Red panics upon receiving an emergency call	1.57	0.97
Officer Red responds to calls, but often takes the long way to get there, possibly hoping other officers will arrive first	1.67	1.12
Officer Red has unsatisfactory grammar and is unable to communicate well with others or interact with the public	2.00	1.17
Officer Red only goes through the motions of the job	2.67	1.35
Officer Red will "go out of the way" to defy departmental regulations	2.20	1.88
Officer Red insults and bullies a father in front of his family	2.13	1.34

PERFORMANCE STATEMENTS FOR OFFFICER BLUE (inconsistent/high perf)

Initial Statements

Item	Mean	SD
Officer Blue only uses a minimum of sick days each year	6.93	2.05
Officer Blue speaks slowly and carefully when testifying in court	7.90	2.02
Officer Blue shows interest in the job and continually seeks ways of improving self	8.20	1.16
Officer Blue is very patient when dealing with citizens who speak little English	7.77	1.45

Subsequent Statements (Consistent)

Item	Mean	SD
Officer Blue reports for duty even if he has a cold if trouble is expected in the city	7.33	1.99
Officer Blue attends special training schools during off-duty hours to improve efficiency and effectiveness as a law enforcement officer	8.17	1.23
Officer Blue has the rare ability to deal with all people fairly and is well liked by officers, supervisors, and the public	8.07	1.78

Subsequent Statements (Inconsistent)

Item	Mean	SD
Officer Blue drinks alcoholic beverages on duty causing performance to deteriorate	1.10	0.30
Officer Blue talks in an unintelligble manner over the radio	2.03	1.07
Officer Blue gets along with other officers on the shift but does not relate well with the public	2.53	1.36

PERFORMANCE STATEMENTS FOR OFFICER BLUE (inconsistent/low perf)

Initial Statements

Item	Mean	SD
Officer Blue drinks alcoholic beverages on duty causing performance to deteriorate	1.10	0.30
Officer Blue talks in an unintelligble manner over the radio	2.03	1.07
Officer Blue refuses training because he sees himself as already an expert	2.03	1.07
Officer Blue embarrasses fellow officers with horseplay while in public	2.23	1.22

Subsequent Statements (Consistent)

Item	Mean	SD
Officer Blue cracks in dangerous situations and tends to shout at other officers	1.63	0.89
Officer Blue fails to recognize and correct own deficiencies without prompting by others	2.70	1.51
Officer Blue antagonizes superiors and fellow officers by starting rumors about them	1.70	1.05

Subsequent Statements (Inconsistent)

Item	Mean	SD
Officer Blue only uses a minimum of sick days each year	6.93	2.05
Officer Blue speaks slowly and carefully when testifying in court	7.90	2.02
Officer Blue shows interest in the job and continually seeks ways of improving self	8.20	1.16

APPENDIX C

Consent Form

APPENDIX C

Consent Form

For this research project you will be asked to examine a number of pieces of information. This information will be presented to you with a slide projector. Specific instructions will be given on how to attend to this information. After presentation of this information, you will be asked to fill out a questionnaire relating to different ways that information can be presented. You will also be asked to fill out questionnaires regarding the information that you were presented. Instructions will be given on how to fill out these questionnaires.

This experiment requires one hour to complete and participation in the experiment is voluntary. While you participation will provide you with extra class credit in your psychology course, a decision not to participate will no affect your course grade. You also have the right to discontinue your participation in the experiment at any time for any reason without penalty.

All results from your participation will be treated with strict confidence and all of your performance records will remain anonymous. Within these restrictions, the final results of the experiment will be availabe to you upon written request.

You will also be fully debriefed at the conclusion of the experiment. Any questions that you may have regarding the research will be answered at that time.

I have read and understood the above statement. The tasks involved in this research have been explained to me. I will consent to participate in this experiment without waiving my right to discontinue my participation in the experiment at any time without recrimination.

_____

Signature of Student

Experimenter: Lisa Wood
14 Baker Hall
355-2171

APPENDIX D

Interference Task: Questionnaire Dealing with Different Modes of Processing Information

APPENDIX D

Interference Task: Questionnaire Dealing with Different Modes of Processing Information

INSTRUCTIONS: Fill out the following questionnaire which concerns different ways of presenting information. You will have 15 minutes to complete this questionnaire. Record your answers in the space provided. If you need additional space, you may continue answers on the back.

On the average how many billboards do you think occur in one highway mile? _____

On the average, how many TV commericals do you think occur during one hour of prime time TV? _____

Name as many TV news reporters as you can.

_____

_____

_____

Name as many Radio announcers as you can.

_____

_____

_____

Name as many Photographers as you can.

_____

_____

_____

Name as many Newspaper reporters as you can.

_____

_____

Name as many Painters as you can.

What books have you read in the past month?

What magazines have you read in the past month?

What movies have you seen in the past month?

APPENDIX E

Measures of Dependent Variables

APPENDIX E

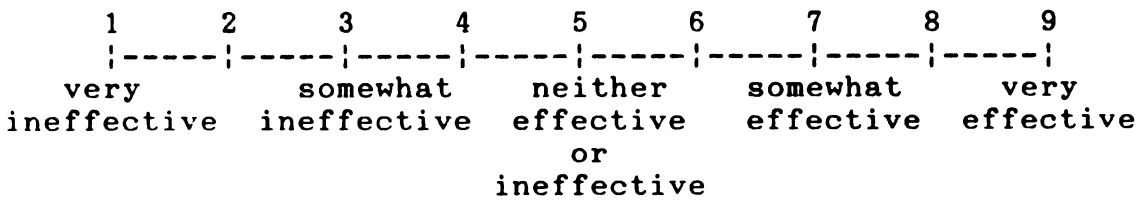
Measures of Dependent Variables

RATING TASK

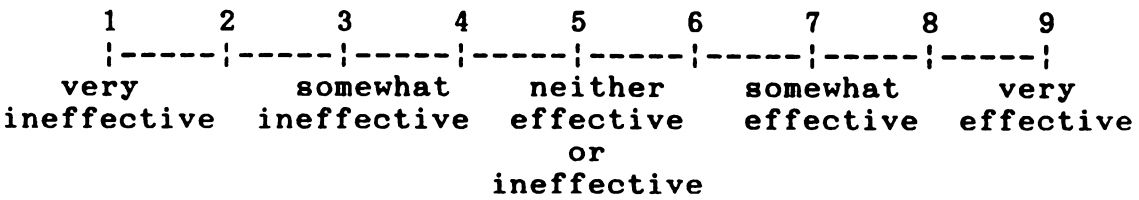
Instructions:

Now that you have been presented with two sets of statements concerning Officers Red and Blue, we would like you to use all of this information to make a rating of each officer. You will be rating each officer on the effectiveness of his/her performance as a police offficer. Use the 9-point scales (1=very ineffective, 9=very effective) displayed below to make your ratings.

Rate the effectiveness of Officer Blue's performance. Circle the number on the scale below which corresponds to your rating.



Rate the effectiveness of Officer Red's performance. Circle the number on the scale below which corresponds to your rating.



RECALL TASK

Instructions:

You have been presented with two sets of information concerning Officers Red and Blue (10 pieces of information about each officer). Now you are to recall each piece as best as you can. Try to recall each statement as it was presented, however, it is important that you write down whatever you can recall even if it is just a few words or a phrase from each statement. If you can only recall the general meaning of a sentence, then that is what you should record.

Record what you are able to recall in the space provided below. Begin each new statement on a new line. You will have 15 minutes to complete this task.

APPENDIX F

Debriefing Statement

APPENDIX F

Debriefing Statement

The purpose of this experiment is to examine how individuals process performance information. In this experiment, performance information was presented for two police officers. One-half of the subjects were told to memorize this information so that they could later recall it, and one-half were told to use this information to form an impression of the officers so that they could later make a rating of their performance. Later in the experiment, all subjects (regardless of their initial instructions) were asked to both recall the information and use it to make performance ratings. This experiment was interested in whether these different initial instructions caused differences in (1) what was recalled and (2) the ratings that were made.

In this experiment, the performance information was presented in two parts. A questionnaire concerning different ways of presenting information was filled out by subjects after the first part and before the second part. This questionnaire was only to act as a distractor between the two presentations. It will not be used in any analyses.

If you like further information about this experiment, please contact: Lisa Wood
14 Baker Hall 355-2171

APPENDIX G

Results of Analyses with Testing Order as an Independent Variable

APPENDIX G

Results of Analyses with Testing Order as an Independent Variable

Table G-1

ANOVA Summary for Recall Variables

Source	df	F-values for Recall Variables: Subsequent	Initial
Testing Order (O)	1	.75	.00
O X Initial Performance Level (P)	1	2.17	.16
O X Processing Goal (G)	1	.08	.19
O X P X G	1	3.99	1.40
Within (S/OGP)	165	(.85)	(1.19)
O X Level of Inconsistency (I)	1	.06	2.04
O X P X I	1	1.22	.97
O X G X I	1	.45	.00
O X P X G X I	1	4.01	.02
Within (IS/OPG)	165	(.58)	(.61)

Note: Values in parentheses represent mean squares terms.

Table G-2

ANOVA Summary for Rating Variables

Source	df	F-values for Rating Variables	
		LO Perf[a]	HI Perf
Testing Order (O)	1	.20	.15
O X Processing Goal (P)	1	.64	1.64
Within (S/OP)	82[86][b]	(3.72)	(2.44)
O X Level of Inconsistency (I)	1	1.09	2.03
O X P X I	1	.00	.35
Within (IS/OP)	82[86][b]	(1.95)	(2.79)

Note: Values in parentheses represent mean squares terms.

[a]LO Perf = Analyses on ratings when initial performance level indicated poor performance
HI Perf = Analyses on ratings when initial performance level indicated good performance

[b]Values outside of brackets are the degrees of freedom for analyses of LO Perf - values in brackets are the degrees of freedom for analyses of HI Perf.