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ABSTRACT

The cognitive approach to stereotypes views stereotyping as a natural consequence of normal cognitive processes; therefore, information that is inconsistent with a stereotype is less likely to be remembered. To investigate this hypothesis an earlier experiment was replicated in three studies. Subjects received congruent or neutral information about a target person with one exception which was either congruent or incongruent with the impression and was attributed to either a situational or dispositional cause. Results demonstrated that incongruent behavior had an advantage in recall only when behavior was attributed to dispositional causes. When behavior was attributed to situational causes, incongruent information was no more likely to be recalled than congruent information. In addition, subjects preferred situational attributions for incongruent behavior and dispositional attributions for congruent behavior. The findings suggest that when confronted with behavior that does not fit their stereotypes, individuals may search for a situational attribution, thereby decreasing the likelihood of recall. (JAC)

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Confirming and Disconfirming Information  
in Stereotyping

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Psychologists have often noted that stereotypes are highly resistant to change. We maintain our generalizations about categories of people in the face of numerous examples of individuals who simply don't fit those generalizations. Early theorists argued that stereotypes are unresponsive to feedback, because they are irrational, an instance of cognitive processes gone awry (Lippman, 1922). The cognitive approach to stereotypes, represented by this symposium, takes an alternative view--that stereotyping is a natural consequence of normal cognitive processes. Several cognitively oriented researchers have suggested that stereotypes are resistant to change because information that is inconsistent or incongruent with a stereotype is less likely to be remembered than information that fits the stereotype. Since incongruent information is not remembered, it has little impact on generalizations about groups.

There is some support for this hypothesis in the literatures on stereotyping, person perception, and non-social perception. For example, recognition memory for items that were presented in a description of a person is more accurate for items that are consistent with a stereotype than for items that are inconsistent with the stereotype (Cohen, in press; Howard & Rothbart, 1980). (See Hamilton, 1979, for a discussion).

Hastie (1981) reviewed both the cognitive and social psychological literatures on memory for information that is consistent or inconsistent with a schema of any type, including a stereotype. He concluded that effects on recognition tasks differ from those on free recall tasks. On recognition tasks, information that is congruent is more likely to be recalled, whereas in free recall tasks, information that is incongruent is more likely to be recalled. Hastie and Kumar (1979) provided a convincing

demonstration of superior recall for incongruent information in social perception. They gave subjects a list of traits said to be characteristic of a stimulus person, John, and then showed sentences describing several behaviors of John. Some of the behaviors were congruent with the initial impression, some were incongruent, and some were neutral with respect to the initial impression. Subjects were instructed to form an impression of John. After viewing the slides, subjects were presented with a surprise free recall task. The results revealed that behaviors that were incongruent with the impression were more likely to be recalled than congruent behaviors.

These results are puzzling in the context of several studies which show that incongruent information has little impact on stereotypes and impressions. The apparent contradiction may be reconciled if subjects ignore the incongruent information believing that it does not provide good evidence of the person's typical behavior. One way to discredit incongruent information is by generating attributions for the behavior. Incongruent behaviors may be attributed to situational pressures or temporary factors rather than seen as reflecting the personality or enduring characteristics of the person. Congruent behaviors, on the other hand, may be attributed to the disposition of the person. Several studies provide at least partial support for this hypothesis. For example, Deaux and Emswiller (1974) found that success by a male on a stereotypically masculine task was attributed to ability, but success by a female on the same task was attributed to luck. (See also Feldman-Summers and Kiesler, 1974; Hamilton, 1979; Kulik, Note 1).

Thus, we argue that information that is incongruent with an impression

may be explained as caused by situational forces. The additional processing that goes into generating this attribution may make the incongruent item easier to recall, yet limit the impact of the item on subsequent judgments. That is, causal attributions for incongruent behavior, not recall for the behavior, may account for the impact of behavior on impressions. By studying recall alone we may not learn very much about why stereotypes are resistant to change.

To investigate this hypothesis, we conducted an experiment replicating most of the basic procedures of Hastie and Kumar's (1979) study. In our experiment, however, all the information subjects received about the target person was congruent or neutral to the impression, with the exception of one target item which was either congruent or incongruent with the impression and was attributed to either a situational or dispositional cause.

#### Experiment 1

Subjects were told they were participating in a study of impression formation. Subjects were given a list of 5 traits characteristic of John: friendly, goodnatured, cheerful, likeable, and pleasant. Subjects wrote their impressions of John, then they saw 17 slides describing behaviors of John. Twelve of the behaviors were friendly, four were neutral, and one behavior--the target behavior-- was either congruent or incongruent with friendly. The congruent behavior was, "He gave up his seat to an elderly man on the subway." The incongruent behavior was "He cut in line in front of 3 people at the bank." In addition, an explanation, attributing the behavior to either a situational or dispositional cause, appeared on the

target slide. For the friendly behavior the situational attribution was, "He did this because he was sitting in a seat legally reserved for the elderly," and the dispositional attribution was, "He did this because he is courteous to others." For the unfriendly behavior the situational attribution was, "He did this because he was paged for an emergency," and the dispositional attribution was, "He did this because he didn't care what others thought." The target slide was always the 8th slide of the 17 shown.

After viewing the slides, subjects again wrote their impressions of John, and rated him on 16 friendly and unfriendly traits. Then subjects were asked to write down as many of John's behaviors as they could remember.

The entire procedure was replicated on a different set of subjects using traits and behaviors related to unintelligence. In sum, we crossed Congruence (congruent or incongruent) with Attribution (situational or dispositional) in a between-subjects design, replicated with two traits, friendly and unintelligent.

### Results

All of the results I will discuss today showed the same pattern for both the friendly and unintelligent traits.

Recall. The major item of interest is the proportion of subjects who recalled item 8, as a function of whether the item was congruent or incongruent, and whether it was given a situational or dispositional attribution. The results of this analysis are presented in the first slide. Contrary to our predictions, the incongruent item was most likely to be recalled only in the dispositional attribution conditions. In the

situational attribution conditions the target item was equally likely to be recalled when it was congruent or incongruent. Thus, we replicated Hastie and Kumar's finding of superior recall for incongruent behavior only when the behavior was followed by a dispositional, but not a situational, attribution.

Impressions. When we looked at the impressions that subjects wrote after learning about John's behaviors, it was clear that some subjects spontaneously mentioned the target item in their impressions. For example, one subject in the incongruent, dispositional attribution condition, wrote,

"It would be hard, after hearing about John's actions, not to think he was an overall nice guy. The one statement that he cut in front of the people at the bank because he did not care what they thought--left me confused. John appears to really care about people, or at least he's putting on a good act. We all have a bad day and even the best people tend to lose their cool sometimes. However--the idea that he didn't care bothered me. Overall I'd feel my friend John was a really nice guy and forget about the bank scene--He seems to be someone who would be a genuine friend and who takes time to do nice things for others. I feel that he is a pretty well rounded individual who would probably be fun to be around." (Subject 030)

We wondered whether subjects were more likely to mention the target item in their impressions in particular experimental conditions. Subjects were most likely to mention the target item when it was incongruent, and followed by a dispositional attribution. Fifty percent of the subjects in this condition mentioned the behavior, compared to 2 subjects in all of the

other conditions combined. It is clear from this analysis that the incongruent item is on subject's minds when it is followed by a dispositional attribution.

To examine the impact of the target item on impressions, we had the impressions coded for friendliness. We predicted that the impact of the incongruent item on impressions would depend on the attribution provided for it. John should be seen as most friendly when the target item was congruent with friendliness and given a dispositional attribution. He should be seen as least friendly when the target item was incongruent with friendliness and given a dispositional attribution. As you can see in the next slide, our predictions were confirmed. The attribution provided for John's behavior influenced how it affected subjects' impressions of him.

Trait Ratings. Subjects also rated John on 16 friendly and unfriendly traits. We predicted effects on the trait ratings similar to those we obtained on the impressions. Again, the attribution provided for the target item should influence how it affected the trait ratings. To our surprise, the predicted interaction was nonsignificant.

#### Discussion

The pattern of results obtained on the open-ended impressions was not replicated on the trait ratings, suggesting that our manipulations had only a weak effect on impressions of John. One explanation for the failure to find effects on the ratings is that the target item was only one of 17 items, and effects of the manipulations on this one item may have been overwhelmed by all the other information available to subjects. That is, a single behavior may have a big impact on our impressions of a person when we have little other information, yet have only a small impact when we know

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a lot about them. To examine this hypothesis, we repeated Experiment 1 with one modification-- subjects saw only 8 slides depicting behaviors of John.

### Experiment 2

All subjects saw the first 8 slides shown in Experiment 1. The target item was now the fifth slide shown. Again, it was either congruent or incongruent, and was followed by either a dispositional or a situational attribution.

### Results

The pattern of results obtained on the recall measure and the open-ended impressions replicated those obtained in Experiment 1.

Trait Ratings. In Experiment 2 we hypothesized that with fewer behaviors, the target item would have an impact on the trait ratings. As you can see in Figure 4, John was rated as most friendly in the congruent dispositional attribution conditions, and least friendly in the incongruent dispositional attribution conditions, as we predicted.

### Discussion

In Experiment 2, recall for the target item, open-ended impressions, and trait ratings all showed a similar pattern of results. The target item was most likely to be recalled and had the most impact on impressions, when it was incongruent and followed by a dispositional attribution. Thus, the type of attribution that subjects generate for incongruent behavior appears to be an important determinant of both recall and impressions.

This raises the question of how our subjects themselves would explain

the target item. Previous research suggests that incongruent behavior tends to be attributed to situational rather than dispositional causes. Thus, we have assumed that our subjects are more likely to generate situational attributions for the incongruent item, and dispositional attributions for the congruent item. To verify this assumption, we conducted a third experiment.

### Experiment 3

In this experiment, we replicated the general procedure of Experiment 1. However, this time no attribution was provided for the target item. After subjects had seen all 17 slides describing behaviors of John, they wrote their impression of him. After giving their impression, subjects were reminded of the behavior on slide 8, and asked to rate "To what extent did this happen because of the kind of person John is," and "To what extent did this happen because of the situation or circumstances John was in."

### Results

We predicted that when the target behavior was congruent with the initial impression subjects would rate the behavior as more dispositionally than situationally caused. When the behavior was incongruent with the impression, it should be seen as more situationally than dispositionally caused. As you can see in Figure 5, our predictions were confirmed.

### General Discussion

These studies demonstrate that incongruent behavior has an advantage in recall only when the behavior is attributed to dispositional causes. When behavior is attributed to situational causes, incongruent information is no more likely to be recalled than congruent information. In addition,

our third experiment shows that subjects do prefer situational attributions for incongruent behavior and dispositional attributions for congruent behavior. This suggests to us that superior recall of incongruent behavior may be an infrequent occurrence outside the laboratory. Instead, when confronted with a behavior that doesn't fit their impressions or stereotypes, people may search for a situational attribution for the behavior, limiting its impact on the impression, and decreasing the likelihood it will be recalled.

These studies suggest a resolution of the apparent contradiction between superior recall for incongruent information, and the persistence of stereotypes in the face of information that doesn't fit those stereotypes. Stereotypes may be difficult to change because when faced with an instance of behavior that disconfirms our stereotypes, we try to explain away the behavior as a product of special circumstances. The disconfirming behavior becomes a special case, not relevant to our impression of the group as a whole, and in all likelihood is forgotten. To understand the process of stereotype change, it may be more important to focus on how information is explained and whether others think it provides good evidence that their stereotype was wrong, than on whether the information was recalled.

Reference Notes

1. Kulik, J. A. Confirmatory attribution bias and the selective perception of situational context information. Unpublished manuscript, University of California, San Diego, 1981.

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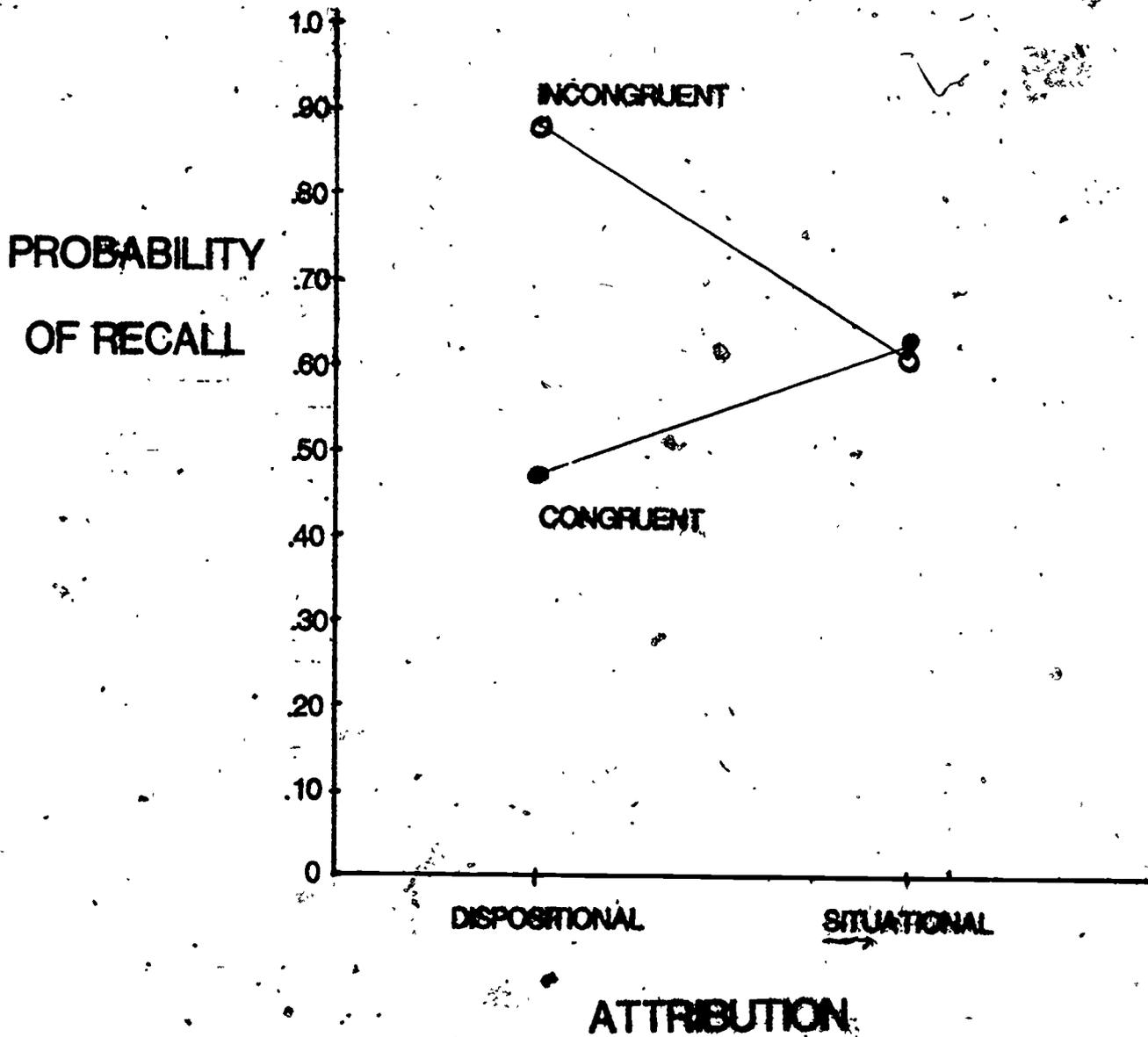
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FIGURE 1

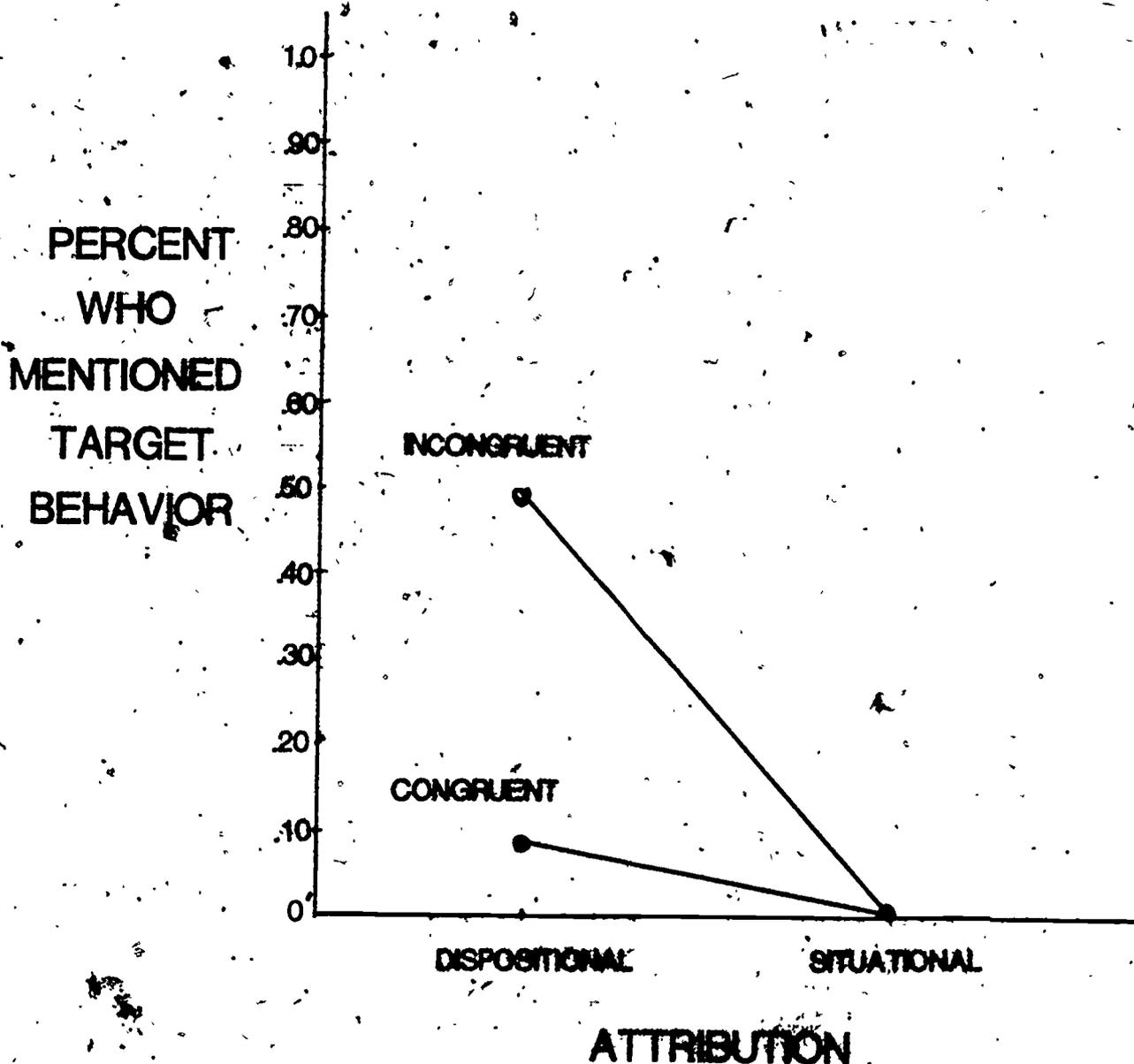
# EXPERIMENT 1



PROBABILITY THAT TARGET ITEM IS RECALLED, AS A FUNCTION OF WHETHER THE ITEM IS CONGRUENT OR INCONGRUENT WITH IMPRESSION, AND CAUSAL ATTRIBUTION PROVIDED FOR THE ITEM.  $F(1,91) = 5.03, p < .03.$

FIGURE 2

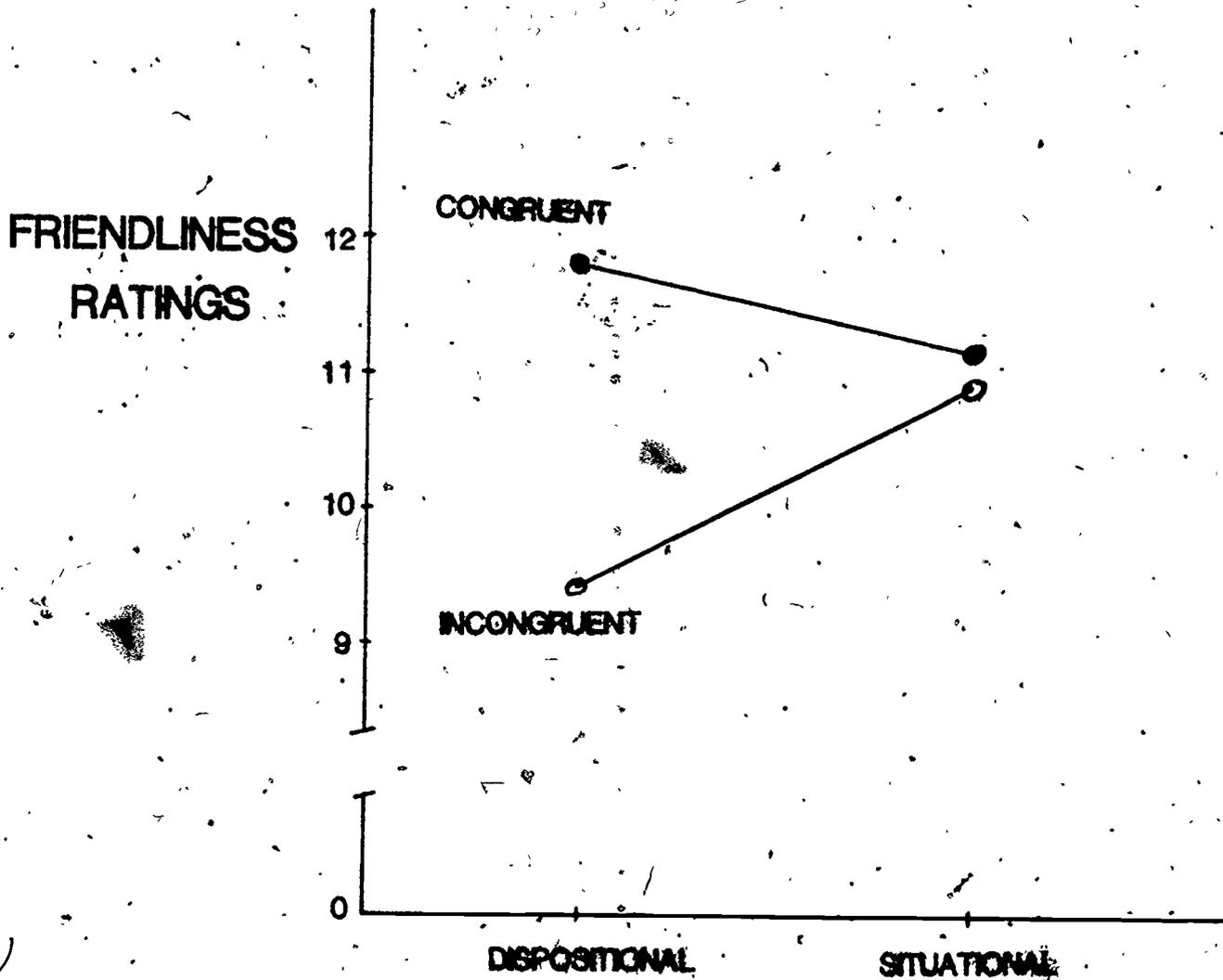
# EXPERIMENT 1



PROPORTION OF SUBJECTS WHO SPONTANEOUSLY MENTIONED THE TARGET BEHAVIOR IN THEIR OPEN-ENDED IMPRESSION OF JOHN. CHI-SQUARE TESTS REVEALED A MAIN EFFECT OF CONGRUENCE ( $\chi^2 (1) = 9.06, p < .003$ ) AND A MAIN EFFECT OF ATTRIBUTION ( $\chi^2 (1) = 15.18, p < .0001$ ).

FIGURE 3

# EXPERIMENT 1

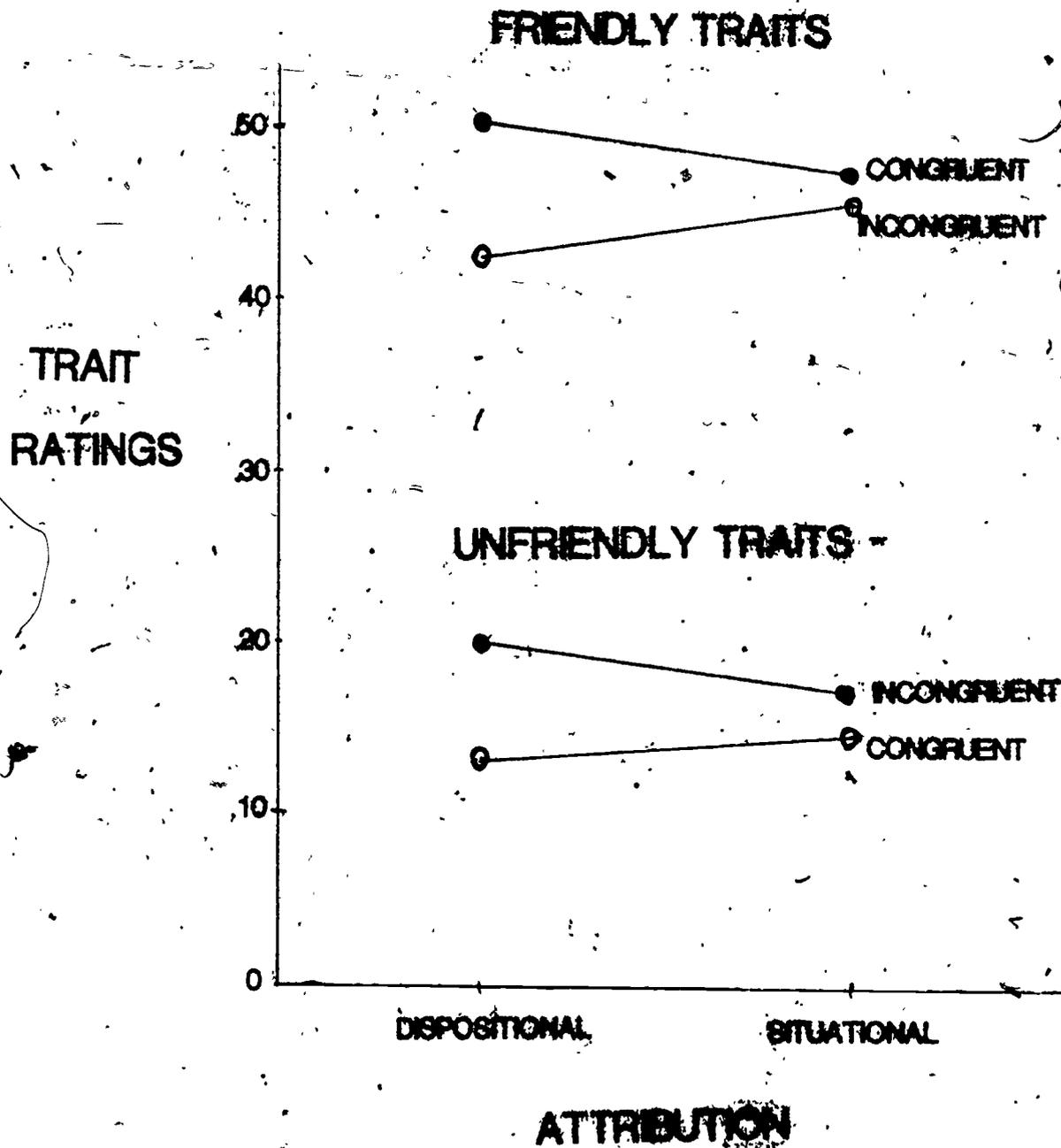


## ATTRIBUTION

IMPRESSIONS OF JOHN AS A FUNCTION OF WHETHER TARGET ITEM WAS CONGRUENT OR INCONGRUENT WITH INITIAL IMPRESSION, AND CAUSAL ATTRIBUTION PROVIDED FOR THE ITEM; HIGHER NUMBERS INDICATE THAT JOHN WAS MORE FRIENDLY. F FOR 2-WAY INTERACTION = 11.04,  $p$  .0014.

FIGURE 4

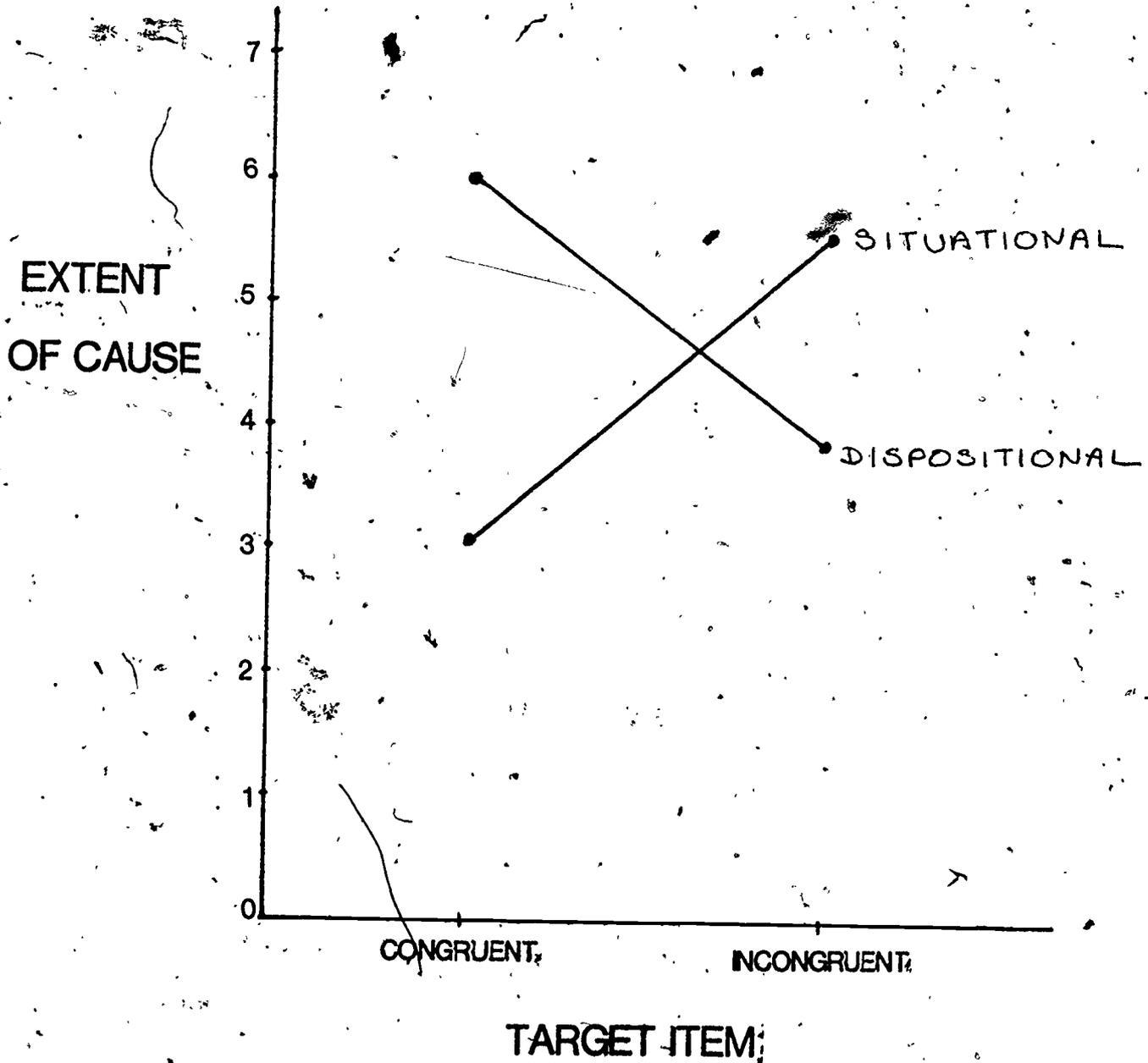
## EXPERIMENT 2



RATINGS ON FRIENDLY AND UNFRIENDLY TRAITS AS A FUNCTION OF WHETHER THE TARGET ITEM WAS CONGRUENT OR INCONGRUENT, CAUSAL ATTRIBUTION PROVIDED.

FIGURE 5

### EXPERIMENT 3



EXTENT TO WHICH BEHAVIOR RESULTED FROM DISPOSITIONAL AND SITUATIONAL CAUSES, AS A FUNCTION OF WHETHER THE BEHAVIOR IS CONGRUENT OR INCONGRUENT WITH IMPRESSION.  $F(1,79) = 79.61, P < .0001.$