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Outcome Dependency: Attention, Attribution, and Attraction

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Theoretical and empirical work on the processes by which we attribute dispositional characteristics to others has focused almost exclusively on how such processes proceed once the perceiver has been motivated to initiate them. The problem of identifying the factors which prompt the perceiver to engage in an attributional analysis in the first place has been relatively ignored, even though the influence of such factors may extend beyond the initiation of the causal analysis to affect the manner in which it unfolds and, ultimately, the form and substance of its conclusion. From the assumption that the function of an attributional analysis is effective control of the social environment, it was hypothesized that high outcome dependency upon another, under conditions of high unfamiliarity, is associated with the initiation of an attributional analysis as evidenced by increased attention to the other, better memory of the other's characteristics and behavior, more extreme and confidently given evaluations of the other on a variety of dispositional trait dimensions, and increased attraction to the other. These hypotheses were tested within the context of a study of heterosexual dating relationships in which men and women volunteers anticipated varying degrees of dependence upon another for their dating outcomes. The findings support the view that the data processing operations of the social perceiver—from attention to memory to attribution—are part of a unified whole and may be viewed as manifestations of an underlying motivation to predict and control the social environment.

Virtually all of the empirical examination of the processes by which we attribute dispositional characteristics to others, as well as most of the theoretical work, has been directed toward an understanding of the "machinery" of the attribution process, *how* such processes proceed once the perceiver has been motivated to initiate them; the question of *when* he fires up his attribution apparatus has been relatively ignored.

That the study of attribution processes has not begun at the beginning is not without consequence. We are, of course, unable to predict when a perceiver will try to make attributions about a specific other; thus, at best, the emerging blueprint of the attribution machinery is incomplete. In addition, and at worst, it may be misleading in relation to its usual operation in daily life; the very factors which influence whether attribution processes are initiated may also steer the manner in which these processes unfold and determine, as well, the point at which they cease.

Where do attribution processes begin? Perceivers, according to attribution theorists, are rational constructors of causal schemata who analyze two types of data, the behavior of another and the context in which his behavior occurred, in order to extract such invariances from these data as the other's dispositional characteristics (e.g., Jones & Davis, 1965; Kelley, 1972b). It follows, then, that just as in any other analysis of data, the attribution process must necessarily start with the collection of data about the object of analysis. The beginning of the attribution process may be presumed to be, therefore, somewhere around the point at which the perceiver *attends* to a particular other, observes his behavior and observes its context (or at-

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tends to such artifacts of the other as the other's responses to a questionnaire, an accounting of his behavior and its context by a third person, etc.).

When do attribution processes begin? Why is the perceiver sometimes willing to spend his time and energy in an effort to arrive at a causal understanding of another's behavior? On the perceiver's motivation for performing an attributional analysis, theorists agree; they endorse the Brunswickian-Heiderian view that perceptual acts function to stabilize and make predictable the phenomenal world. Kelley (1972a), for example, observes, "The attributor is not simply an attributor, a seeker after knowledge. His latent goal in gaining knowledge is that of effective management of himself and his environment" (p. 22). He comments further, in fact, that "The attributional process can be well understood only in the context of a comprehensive analysis of the exercise of control" (p. 22). It follows, then, that the attribution machinery is most likely to be activated for a person in the perceiver's social environment who represents a potential control problem to him; a person who does not present the perceiver with problems of control should be unlikely to be the subject of an attributional analysis and should, therefore, be unlikely to invite attention in the service of such an analysis.

Confidence in the designation of attention to another as the beginning point of the attribution process is increased by the apparent similarity between the factors which reflect the degree to which a person in the perceiver's social environment may represent a potential control problem to him and those which are known to influence attentional processes. The factors perception theorists and researchers have identified as governing attentional processes generally may be subsumed under the two general principles of novelty and importance (cf. Berlyne, 1960, 1974; Lanzetta, 1971).

In terms of the perceiver's exercise of control over his social environment, it seems reasonable to assume that, other things being equal, novel or unfamiliar people are more likely to represent potential problems of control than are familiar (and predictable) others. While the determinants of importance have not been strictly specified, the degree of importance of social stimuli should increase with another's ability to control the perceiver's rewards and punishments. Thus, the importance of a social stimulus to the perceiver should be a function of the perceiver's outcome dependency upon that other (cf. Thibaut & Kelley, 1959).

Thus, we can predict that, other things being equal (particularly the degree of "novelty" of persons in the perceiver's social environment), persons on whom the perceiver's outcomes are dependent should be especially likely to trigger the attribution machinery; as the perceiver's outcome dependency upon another increases, there should be an increased tendency for the perceiver to be attentive to the other, to collect data about the other's behavior and the context in which the behavior occurred, and to perform an attributional analysis upon these data.

We speculated earlier that the same factors which influence whether attribution processes are initiated in the first place may also influence the manner in which the attributional analysis subsequently unfolds. If it is true that outcome dependency is one determinant of whether an attributional analysis is begun, then we may make at least two predictions about how this particular factor might reign over the whole causal analysis.

First, we may predict that as his outcome dependency on the person who is the object of his analysis increases, so does the perceiver's preference that the analysis conclude in a dispositional rather than a situational attribution. Knowledge of another's personal and internal predispositions to behave in certain ways would seem to be a more useful bit of information to the perceiver who hopes to exercise control over that part of his social environment than an attribution of the other's behavior to nonpersonal situational factors would be (cf. Shaver, 1975). Thus, the factor triggering the analysis may influence the *form* of the attribution arrived at.

Second, when the triggering factor is outcome dependency, the social perception literature allows us to predict that it will influence the *substance* of the attribution as well. The results of several studies investigating the influence of perceiver need states upon

social perception may be interpreted to support the thesis that persons who are outcome dependent upon another tend to arrive at wish-fulfilling conclusions about the other's dispositions (e.g., Berscheid, Boye, & Darley, 1968; Darley & Berscheid, 1967; Levine, Chein, & Murphy, 1942; Pepitone, 1950; Stephan, Berscheid, & Walster, 1971). Thus, as the perceiver's outcome dependency upon another increases, the dispositional attributions made about the other should be in the direction of wish fulfillment (even despite the fact that dependency should lead the perceiver to pay close attention to the other's behavior and the context in which it occurred).

We can make, therefore, the following predictions: As the perceiver's outcome dependency on another in his social environment increases, the perceiver should (a) *attend more closely* to the other; (b) *remember and recognize more details* about the other's behavior; (c) be more likely to *make dispositional attributions* about the other (as evidenced by more extreme and more confident responses on trait scales, Jones & Davis, 1965); and (d) *ascribe more positive dispositional characteristics* to the other and, thus, (e) *like* the other more.

Method

Overview

To investigate the hypotheses outlined above, it was necessary to devise a situation in which (a) the degree to which persons in the perceiver's social environment represented potential problems of control to the perceiver could be manipulated; specifically, the perceiver's outcome dependency on each could be varied, and novelty could be held constant; (b) the degree of attention the perceiver subsequently awarded to each of these others; as well as (c) the extent to which the perceiver arrived at dispositional inferences about each could be ascertained; and finally, (d) the degree to which these dispositional attributions reflected wish-fulfilling distortion could be specified a priori.

We also wished the situation to permit administration of an individual difference measure, Snyder's Self-Monitoring Scale (Snyder, 1974), to assess the perceiver's general dependency upon persons in his social environment for cues to guide his or her own behavior. Snyder has hypothesized that high self-monitoring persons are particularly concerned with the "appropriateness" of their own behavior and, for this reason, are especially attentive to the behaviors emitted by others. Thus, the behaviors hypothesized to characterize perceivers scoring high on this individual difference measure resemble the behaviors we hypothesize will characterize perceivers who find themselves in a situation in which their outcomes are highly dependent on another.

All of these conditions were satisfied, for our college age population, by a situation in which the perceiver agreed to turn over his (or her) heterosexual dating life to us, the experimenters, for a period of 5 weeks, promising that he would date whenever, and whomever, we instructed, fully aware that it could be his lot to date no one for the period, the same person many times over the period, or many different people over the period. We were thus able to situationally manipulate the perceiver's outcome dependency upon a person by manipulating his expectation that he or she would be unlikely to date that particular person but rather would be dating others for the 5-week period (zero exclusiveness); would date that person once and also others during the period (low exclusiveness); would date that person exclusively over the entire 5-week period (high exclusiveness).

Participants

Twenty-nine males and 28 females who were between 18 and 22 years of age volunteered for an advertised experimental study of "heterosexual dating relationships." These individuals also had indicated that they were not currently romantically involved with any one person (i.e., married, engaged, going steady, etc.) and were seriously interested in meeting persons of the other sex. All but three were willing to commit themselves to the dating terms described below, leaving 27 males and 27 females who subsequently participated in the study.

Procedure

Each participant was interviewed individually and asked if he or she would agree to three stipulations: (a) to participate in a dating study to last 5 weeks and to date only those individuals assigned to them on the basis of a random lottery and to date absolately no one else; (b) to report their impressions of their assigned date following each contact; and (c) to engage in a short videotaped discussion of "dating problems on campus" with two other participants of the same sex and to view a videotape of a similar discussion made by three discussants of the other sex.

To assure commitment to these procedures and conditions, each participant was asked to sign a formal guarantee to the above stipulations.

Exclusiveness manipulation. Participants were randomly assigned to either the high-, the low-, or the zero-exclusiveness condition. In the high-exclusiveness condition, the participant was given the prospective date's name and phone number, and was informed that he or she would be dating this person exclusively—once a week—for the entire 5-week period. In the low-exclusiveness condition the pro-

cedure was the same, except that the participant was informed that he or she would be dating this person only once, and that a different person would be dated for each of the remaining 4 weeks. The procedure for the zero-exclusiveness condition was identical to the low-exclusiveness condition, except that the name given as the prospective date was not among the names of the discussants whom the participant would shortly view on the videotape. Since none of the videotaped discussants in the zero-exclusiveness condition would be a date, this condition was not included as part of the factorial design, but was included to provide base-rate levels of response on the principle dependent measures (cf. Himmelfarb, 1975).

Stimulus materials and apparatus. After the participant received the date's name and number, the experimenter asked whether he or she presently had enough time to view a videotaped discussion of some participants of the other sex for the purpose of gaining perspective on dating problems.

Participants viewed the discussion over a specially designed system which consisted, in part, of a television monitor and three switches. The experimenter explained that due to the limitations of the recording equipment, it would be possible to view only one of the three discussants on the videotape at a time. He indicated that when any one of the switches was depressed, only the corresponding discussant would appear on the monitor; for example, if the left switch were depressed, only the participant who had been sitting in that location of the discussion room would appear. The audio track was common to all three switches. If no switch was depressed, there was neither video nor audio. If more than one switch was depressed, the video was scrambled. For a switch to be operative, it had to be actively held down; release resulted in loss of both video and audio. Connected to each switch was a remote cumulative timer which measured the time a participant attended to each of the discussants. The experimenter was not present while the participant viewed the videotape.

Male participants viewed a videotape of three female confederates who engaged in an apparently spontaneous 15-minute discussion of dating problems; female participants viewed a tape of three male confederates. The confederates were selected, and the tapes were edited, on the basis of extensive pretesting, such that (a) the stimulus persons within each tape all appeared to be slightly above average in physical attractiveness and equivalent to each other on this dimension; (b) male confederates were as attractive to females as female confederates were to males; (c) each person spoke for about the same length of time; and (d) in general, they appeared to be of about equivalent dating desirability.

Each stimulus person discussant was dressed distinctively yet stylishly, and each mentioned his or her interests, hobby, academic major, etc., in the course of the dialogue. For the first 7.5 minutes of conversation, however, the discussants did not mention their names. Thereafter, the discussants introduced themselves to each other using their "names."

Participants in the high- and the low-exclusiveness conditions anticipated dating one of the three stimulus persons on the videotape. The prospective date's name had been randomly selected for each participant. Each of the stimulus persons on each tape was designated a prospective date for an equal number of participants in each of the high- and low-exclusiveness conditions. In the zero-exclusiveness condition, participants expected to date a person whose name was given to them, but that person was not among the discussants on the videotape viewed.

Questionnaires. After the participant had viewed the videotape, the experimenter returned and asked the participant to complete an "impression formation questionnaire." This measure was ostensibly introduced as a means of determining if men and women differed in the way they responded to videotaped discussions and the impressions they derived from them.

The first items on the questionnaire were memory items, both recall and recognition, for each of the three stimulus persons. They required the participant to answer questions pertaining to specific things said or articles of clothing worn by each of the stimulus persons.

Next, participants were asked to complete 15 bipolar trait scales (e.g., warm–cold, strong–weak) for each of the three stimulus persons. Immediately beneath each trait scale was a bipolar "confidence" scale. Thus, after each trait rating was made, participants rated their confidence in the rating they had made. According to Jones and Davis (1965), attributions of dispositions to a stimulus person are evidenced by perceiver ratings of the stimulus person which are extreme on trait dimensions, and ratings in which the perceiver indicates confidence.

In addition, participants were asked to rate their liking for each stimulus person on a 41-point bipolar liking scale. And finally, participants were asked to complete the self-monitoring scale (Snyder, 1974).

After participants had completed all questionnaires, they were interviewed extensively. No participant reported suspicion, nor were any able to guess the true nature of the experiment. Participants were debriefed and thanked for participating in the experiment, which was terminated at this point. To fulfill the promise of a date, however, each male was randomly assigned to a female participant.

Results

Independent Variables and Design

The independent variables were:

1. Date versus nondate. Since there were three stimulus persons, and only one of these was the anticipated date, the remaining two were designated as "nondates." For each dependent measure, scores for the two nondates were summed and divided by two, yielding an average nondate score. Thus, each participant produced two scores for each dependent mea-

sure: a score for the anticipated date and a score representing the average of the two nondates. For the analyses, this within-subjects variable was nested within the other two independent variables for two reasons: (a) It was predicted that the other two independent variables would affect responses to the anticipated date, but not responses to the nondate; and (b) on some dependent variables, there was a direct dependency of certain date scores on nondate scores; for example, if a participant attended to his anticipated date, he could not simultaneously attend to his nondate.

2. Exclusiveness of relationship. Although there were three levels of exclusiveness in the study (zero exclusiveness, 0-dates; low exclusiveness, 1-date; and high exclusiveness, 5-dates), only low and high exclusiveness were included in the major analyses. Since there could be no date-versus-nondate factor in the zero-exclusiveness condition (all three stimulus persons were nondates), data obtained from the zero-exclusiveness condition were analyzed in separate auxiliary comparisons.

3. Self-monitoring. Each of the participants in the low-exclusiveness and high-exclusiveness conditions were classified as either high in self-monitoring or low in self-monitoring on the basis of a median split of scores ($Mdn = 12$) on the Snyder Self-Monitoring Scale.[1]

4. Sex of participant. Due to the multiple dependent measures and the likelihood of substantial intercorrelations between these measures, the data were analyzed in a single multivariate analysis of variance (MANOVA). Since there were no systematic differences (main effects or interactions) between male and female participants on any of the dependent variables (all MANOVA Fs ≤ 1.70), data for male and female participants were combined for all subsequent analyses. Thus, subsequent MANOVAs were based on a $2 \times (2 \times 2)$ design and were followed by separate univariate ANOVAs for each dependent measure (Hummel & Sligo, 1971).

Dependent Variables

Each participant produced seven dependent measures for the anticipated date and seven dependent measures for the average nondate. These were:

1. Attention. The attention dependent measure was the percentage of time the anticipated date and the average nondate were watched *after* the stimulus persons had mentioned their names.

2. Recall. The recall dependent measure consisted of "fill-in-the-blank" items, such as "What was the academic major of the person on the left (on the videotape)?"

3. Recognition. The recognition dependent measure consisted of multiple choice items referring to details of the videotaped discussion of the stimulus persons. For example, participants were asked, "Who said he liked to go to sports events on a first date?" Choices were the person on the right (on the videotape), person on the left, person in the middle, and no one. Since males and females saw different videotapes, items drawn from the one tape may have been more difficult than items drawn from the other tape. For this reason, recognition items were converted to standardized z scores before the recognition scores were analyzed. By converting to z scores, mean difficulty across items and across tapes was equated.

4. Extremity of trait ratings. This dependent measure was the sum of the absolute deviation from the midpoint of 21 on each of the 15 bipolar 41-point trait scales.

5. Confidence of trait ratings. After participants had completed each rating of a stimulus person on a bipolar trait scale, they were asked to indicate their confidence in that rating on a 41-point scale which was placed immediately beneath the trait scale. Scores on the 15 confidence scales were summed.

6. Positivity of trait ratings. Each of the 15 trait scales had a positive pole (e.g., "warm," "sensitive") and a negative pole (e.g., "cold,"

[1] The range of self-monitoring scores in the low-exclusiveness condition was 5 to 18, with 11 participants at or above the median of 12 and 7 below the median of 12. The range of self-monitoring scores in the high-exclusiveness condition was 5 to 22, with 11 at or above the median of 12 and 7 below the median. Thus, cell frequencies are proportional. The correlation between the total range of self-monitoring scores and each of the dependent variables is reported in Table 3.

TABLE 1

MANOVA AND ANOVA SUMMARY TABLE FOR THREE OUTCOME DEPENDENCY VARIABLES

Variable	Date/Nondate *F*	Exclusiveness condition		Self-monitoring	
		Date *F*	Nondate *F*	Date *F*	Nondate *F*
MANOVA	44.71****	2.20*	2.50*	2.49*	1.48
Univariate ANOVAs					
Attention	58.66****	8.96***	8.43**	2.02	1.97
Memory					
Recall	259.54****	.00	.08	6.77**	1.03
Recognition	31.83****	.05	2.23	.62	.01
Attribution					
Extremity	4.32*	2.46	9.13***	10.31***	8.22**
Confidence	5.53*	.27	1.86	4.38*	1.11
Attraction					
Liking	6.43*	3.50*	1.07	4.51*	.28
Positivity	12.63****	4.51*	4.11*	5.67*	.81

Note. For MANOVA effects, $df = 7, 26$; for univariate ANOVAs, $df = 1, 32$.
* $p < .05$.
** $p < .01$.
*** $p < .005$.
**** $p < .001$.

"insensitive"). Each trait scale was scored such that a response nearest the negative pole received a score of 1, and a response nearest the positive pole received a score of 41. Scores on all 15 scales were summed.

7. Attraction. The liking dependent measure consisted of the response to the question "How much did you like this person?" on a 41-point bipolar scale.

MANOVA and Univariate Analyses

No significant interactions were found between the exclusiveness variable and the self-monitoring variable on any of the dependent measures for either the anticipated date or the nondate (all Fs < 1.14). Thus, the analyses reported below describe the main effects which were evident for the three outcome dependency factors: date/nondate, high/low exclusiveness, high/low self-monitoring. These analyses are presented in Table 1.

First, there was a highly significant MANOVA date-versus-nondate effect, $F(7, 26) = 44.71$, $p < .00001$. This result supported our prediction that an anticipated date would elicit different responses on the dependent measures than would a nondate.

Second, there was a significant MANOVA exclusiveness effect for the responses to the anticipated date, $F(7, 26) = 2.20$, $p < .06$. This finding supported our prediction that a person who was expected to be a date five times was responded to differently than was a stimulus person who was expected to be a date only one time. Contrary to our predictions, however, there was also a significant MANOVA exclusiveness effect for the nondate, $F(7, 26) = 2.60$, $p < .04$. Exclusiveness of the relationship with the date affected reactions to the nondate as well.

There was a significant MANOVA self-monitoring effect for the anticipated date, $F(7, 26) = 2.49$, $p < .04$. This finding supported our prediction that participants high in self-monitoring would respond to an anticipated date differently than low self-monitors would. As predicted, there was no significant MANOVA self-monitoring effect for the nondate, $F(7, 26) = 1.48$, *ns*.

The univariate ANOVAs provide more specific tests of our hypotheses of participants' responses on each of the dependent measures.

Attention

A significant univariate date–nondate effect for attention, $F(1, 32) = 58.66$, $p < .000001$, indicated that the anticipated date was awarded more of the participant's attention ($M = 40.53\%$) than was the nondate ($M = 29.69\%$).

As predicted, there also was a significant univariate exclusiveness effect for the anticipated date on the attention dependent measure, $F(1, 32) = 8.96$, $p < .005$; an antici-

pated date was given more attention in the high-exclusiveness condition ($M = 43.33\%$) than in the low-exclusiveness condition ($M = 37.72\%$).

The univariate self-monitoring effect for the anticipated date was not significant on this dependent measure, $F(1, 32) = 2.02$, $p < .16$; men and women high in self-monitoring did not spend more of their time watching their anticipated date than those low in self-monitoring did.

Memory

A highly significant univariate date-versus-nondate effect for recall, $F(1, 32) = 259.54$, $p < .000001$, was found; this finding indicated that, as predicted, participants recalled more details about their anticipated date ($M = 2.83$) than about the nondate ($M = 1.33$).

There was a highly significant date–nondate effect for recognition as well, $F(1, 32) = 31.83$, $p < .00003$, indicating that participants recognized more details pertaining to their anticipated date ($M = +.66$) than to the nondate ($M = -.17$). To investigate whether accuracy in recognition was due to a response bias toward attributing all statements to the date, analyses of "false positive" scores were conducted. The results of these analyses did not support this interpretation of the recognition finding; false positive scores did not vary with condition (all Fs < 1.26).

The univariate exclusiveness effect for recall for the anticipated date was not significant, $F(1, 32) = .00$, nor was the univariate exclusiveness effect for recognition for the anticipated date, $F(1, 32) = .05$.

The univariate self-monitoring effect for recall for the anticipated date was significant, $F(1, 32) = 6.77$, $p < .01$; those high in self-monitoring recalled more about their anticipated date ($M = 3.00$) than did those low in self-monitoring ($M = 2.57$).

Trait Ratings

Extremity. There was a significant univariate date–nondate effect for extremity of trait rating, $F(1, 32) = 4.32$, $p < .05$; participants rated their anticipated date more extremely ($M = 132.06$) than they did their nondates ($M = 120.72$).

Although the means were ordered as predicted, the univariate exclusiveness effect for the anticipated date was not significant on the extremity of trait rating measure, $F(1, 32) = 2.46$, $p < .13$. The univariate exclusiveness effect for extremity for the nondate was significant, however, $F(1, 32) = 9.13$, $p < .005$; this finding indicated that a nondate was rated more extremely in the high-exclusiveness condition ($M = 135.83$) than in the low-exclusiveness condition ($M = 105.61$).

There was a significant univariate self-monitoring effect for extremity for the anticipated date, $F(1, 32) = 10.31$, $p < .003$, indicating that those high in self-monitoring rated their anticipated date more extremely ($M = 150.36$) than did persons low in self-monitoring ($M = 103.29$). High self-monitoring individuals were also more extreme in rating their nondates ($M = 132.16$) than were the low self-monitoring participants ($M = 102.75$); $F(1, 32) = 8.22$, $p < .007$.

Confidence. For the confidence in trait rating dependent measure, there was a significant univariate date–nondate effect, $F(1, 32) = 5.53$, $p < .03$; this finding indicated that the anticipated date was rated more confidently ($M = 393.67$) than were the nondates ($M = 372.86$).

The univariate exclusiveness effect for confidence in rating the anticipated date was not significant, $F(1, 32) = .27$. The univariate self-monitoring effect for confidence in trait rating of an anticipated date was significant, $F(1, 32) = 4.38$, $p < .04$, indicating that persons high in self-monitoring were more confident in rating an anticipated date ($M = 418.19$) than were persons low in self-monitoring ($M = 354.00$).

Dispositional attributions. Following Jones and Davis' operational definition of dispositional attributions, when a perceiver rated a stimulus person both extremely and with confidence on trait rating scales, we assumed he had made dispositional attributions to the person. It will be recalled that the extremity and confidence data analyzed in the two separate ANOVAs indicated that perceivers were both more extreme and more confident in rating

persons they anticipated dating than they were in rating persons they did not expect to date. These analyses do not tell us, however, whether extremity and confidence covaried in ratings of the same stimulus person. To investigate whether this was indeed the case, within each exclusiveness condition, we correlated the extremity score with the confidence score for the ratings of the date, and compared this correlation with the correlation between average nondate extremity scores and confidence scores.

These analyses revealed that within the low-exclusiveness (1-date) condition, extremity and confidence were correlated +.77 ($df = 16$) for the date, and +.41 ($df = 16$) for the average nondate. Within the high-exclusiveness (5-date) condition, extremity and confidence were correlated +.85 ($df = 16$) for the date, and +.63 ($df = 16$) for the average nondate. Thus, extremity and confidence were more highly correlated for dates than they were for the average nondates. In both exclusiveness conditions, the correlation between extremity and confidence of trait rating was significantly higher for the date than for the nondate.[2] (A similar pattern was found for both those high and those low in self-monitoring in both conditions.)

Extremity and confidence ratings from the zero-exclusiveness (0-date) condition provided especially valuable information relevant to this issue. Since all three stimulus persons in this condition were nondates, dispositional attributions should have had relatively less utility for the perceivers in this condition. As a consequence, we expected the correlation between extremity and confidence scores to be lower for all stimulus persons in the zero exclusiveness condition than for the anticipated date in the other conditions. As predicted, there was no significant correlation ($r = +.07$, $df = 16$) between extremity and confidence of trait ratings in the zero exclusiveness condition.

It might be argued that the lack of correlation between extremity and confidence in the zero-exclusiveness (base-rate) condition merely reflects a restriction in range since we had expected ratings in this condition to be less extreme and less confidently given than in a condition in which a date was anticipated. To investigate this possibility, the variances associated with the extremity and confidence of trait ratings in the zero exclusiveness condition were compared with the variances associated with the extremity and confidence ratings of an anticipated date, collapsing across the high- and low-exclusiveness conditions. There was no reliable evidence of differential variability on the extremity ratings between the zero-exclusiveness condition ($SD = 45.65$) and the conditions in which a date was anticipated ($SD = 48.96$), $F(35, 17) = 1.15$, *ns;* nor was there differential variability on the confidence ratings between the zero exclusiveness condition ($SD = 75.68$) and the anticipated date conditions ($SD = 93.62$), $F(35, 17) = 1.53$, *ns*.

It should be noted that, contrary to our expectation, the stimulus persons in the zero-exclusiveness condition were not rated less extremely than were anticipated dates. In addition, the stimulus persons were not rated any less confidently in the zero-exclusiveness condition than in the anticipated date conditions. The ANOVA summary and marginal means for extremity, confidence, and the other dependent variables are presented in Table 2.

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[2] Due to the dependency between ratings for the date and ratings for the nondate, these correlations could not be directly contrasted. We would like to thank Auke Tellegen for suggesting a test based on the following reasoning: When two variables x and y are perfectly correlated ($r_{xy} = \pm 1.00$) and when each pair of x and y scores are converted to z scores, within each pair, $z_x = z_y$; the smaller the relationship between x and y, the greater discrepancy within pairs of z scores. Therefore, within both high- and low-exclusiveness conditions, extremity scores and confidence scores were converted to z scores for the date and for the nondate. The z scores for extremity were subtracted from the z scores for confidence for the date, producing a date discrepancy score. A similar discrepancy score was produced for the nondates. It was hypothesized that if there were a higher correlation between extremity and confidence for the date than for the nondate, the discrepancy score for the date should be significantly smaller than for the nondate. This hypothesis was tested using t tests for correlated measures. There was a significantly smaller discrepancy score for the date than for the nondate in both the low-exclusiveness condition, $t(17) = 2.36$, $p < .05$, and in the high-exclusiveness condition, $t(17) = 2.96$, $p < .01$. (Both t tests were two-tailed.)

TABLE 2

SUMMARY TABLE AND MEANS FOR AN ANTICIPATED DATE (COLLAPSING ACROSS HIGH- AND LOW-EXCLUSIVENESS CONDITIONS) VERSUS NONDATE IN ZERO-EXCLUSIVENESS CONDITION

ANOVA effect	Anticipated date *M*	Nondate *M*	*F*
Attention	40.53%	33.33%	24.30***
Memory			
Recall	2.83	1.61	60.70***
Recognition	+.66	−.21	4.89*
Attribution			
Extremity	132.06	132.46	.00
Confidence	393.67	400.43	.07
Attraction			
Liking	29.22	25.54	5.63**
Positivity	401.33	366.98	4.82*

Note. For ANOVA effects, $df = 1, 52$.
* $p < .05$.
** $p < .025$.
*** $p < .001$.

In summary, there is no evidence that participants responded less extremely or less confidently in the zero-exclusiveness condition. This suggests that the lack of correlation between extremity and confidence in the zero-exclusiveness condition might better be attributed to less coherence and correspondence in the inference process in this condition than to a restriction in range artifact.

Attraction

To investigate our hypotheses on the attraction dependent measure, we return now to the ANOVA analyses. There was a significant univariate date-nondate effect for liking, $F(1, 32) = 6.43$, $p < .02$. As predicted, participants liked their anticipated date significantly more ($M = 26.22$) than they liked nondates ($M = 25.44$).

The univariate exclusiveness effect for liking was marginally significant, $F(1, 32) = 3.50$, $p < .07$; it suggested that an anticipated date was liked more under high-exclusiveness ($M = 30.83$) than under low-exclusiveness ($M = 27.61$) conditions.

The univariate self-monitoring effect for liking was also significant, $F(1, 32) = 4.51$, $p < .04$, indicating that those high in self-monitoring liked their anticipated dates more ($M = 30.68$) than did those low in self-monitoring ($M = 36.93$).

When we examine the positivity of trait ratings, we find a significant univariate date–nondate effect, $F(1, 32) = 12.63$, $p < .001$, indicating that the anticipated date was perceived more positively ($M = 401.33$) than was the nondate ($M = 363.11$).

The univariate exclusiveness effect for positivity of trait ratings for the anticipated date was also significant, $F(1, 32) = 4.51$, $p < .04$, indicating that an anticipated date was rated more positively under high-exclusiveness ($M = 421.50$) than under low-exclusiveness ($M = 381.77$) conditions. Unexpectedly, but in accord with some results on other dependent measures, the univariate exclusiveness effect for the nondate was also significant, $F(1, 32) = 4.11$, $p < .05$, indicating nondates in the high-exclusiveness condition were rated more positively ($M = 380.06$) than were nondates in the low-exclusiveness condition ($M = 346.17$).

The univariate self-monitoring effect for the anticipated date was also significant, $F(1, 32) = 5.67$, $p < .02$; those high in self-monitoring rated their anticipated date more positively ($M = 419.36$) than did those low in self-monitoring ($M = 373.00$).

It will be recalled that we hypothesized that in general, under conditions of high outcome dependency, a person should be highly motivated to predict the behavioral predispositions of the person on whom he or she is dependent. We expected this motivation to be reflected in high intercorrelations among all the dependent variables under conditions of high outcome dependency, but low intercorrelations under low outcome dependency. Since each of the independent variables in the MANOVA analyses we conducted may be viewed as convergent conceptualizations of outcome dependency (cf. Messick, 1975), we may interpret our finding that each of these MANOVA effects were significant as suggesting that a single factor, outcome dependency, was underlying participants' responses on the dependent measures. In addition, Table 3 presents the intercorrelations among the seven dependent measures, as well as their correlations with self-monitoring scale scores, for the anticipated date and for the nondate (collapsing across the 1-date and 5-date conditions) and the zero-date stimulus persons as well. It can be seen that responses on the de-

TABLE 3

INTERCORRELATION MATRIX FOR DEPENDENT VARIABLES FOR THE ANTICIPATED DATE, NONDATE, AND NONDATE FROM ZERO-EXCLUSIVENESS CONDITION ("ZERO DATE")

	Recall	Recognition	Extremity	Confidence	Liking	Positivity	Self-monitor Score
Attention							
Date	.17	−.01	.35*	.34*	.22	.31	.39*
Nondate	.10	−.23	−.19	−.17	.20	.23	−.18
0-date	−.06	.08	−.18	−.01	.21	.11	.06
Memory							
Recall							
Date		−.06	.38*	.28	.19	.28	.38*
Nondate		−.10	.02	.06	.12	.03	.11
0-date		.06	−.18	−.05	−.14	−.22	.27
Recognition							
Date			−.24	−.19	.02	−.12	−.01
Nondate			−.20	−.10	.11	−.09	.04
0-date			.27	.21	−.12	.02	.13
Attribution							
Extremity							
Date				.80***	.67***	.84***	.45**
Nondate				.57***	.17	.45***	.31
0-date				.07	−.04	−.32	.05
Confidence							
Date					.50**	.61***	.36*
Nondate					.20	.32	.26
0-date					.02	.01	.08
Attraction							
Liking							
Date						.58***	.35*
Nondate						.70***	.05
0-date						.69**	−.11
Positivity							
Date							.36*
Nondate							.11
0-date							.08

Note. Correlations for Date are based on 36 observations ($df = 34$). Correlations for Nondate are derived from the average of the correlations of the two nondate stimulus persons and are based on 36 observations ($df = 34$). Correlations for 0-date are derived from the average of the correlations of the three 0-date stimulus persons and thus are based on 18 observations ($df = 16$).
* $p < .05$.
** $p < .01$.
*** $p < .001$.

pendent measures tended to be more highly intercorrelated for the anticipated date than for the nondate and zero-date stimulus persons.

DISCUSSION AND CONCLUSIONS

We hypothesized, it will be recalled, that the same factors which prompt the initiation of the attribution process may guide, in predictable ways, how the process unfolds, influencing both the form and the substance of its conclusion. Following the view that all perceptual acts are performed in the service of rendering the environment stable and predictable, and particularly Kelley's (1972a) view that "The purpose of causal analysis . . . is effective control" (p. 22), we reasoned that outcome dependency upon another, under conditions of high novelty, may be one such initiating factor.

With divergences only in some particulars, our results generally support the specific hypotheses deduced from the above reasoning. With increases in a person's dependency upon another (for his or her dating outcomes, in this case), he or she tended to award more attention to the other, remember more about the other, evaluate the other more extremely and more confidently on a variety of dispositional traits, and be more attracted to the other as indicated by the positivity of trait ratings of the other and by self-reported liking of the other.

These last findings do not appear to be due solely to the fact that perceivers paid more attention to, and thus should have had more information about, the other on whom they anticipated dependence. Several lines of evidence argue against a purely informational interpretation of the memory and attraction results. First, there were few significant correlations between attention time and the other dependent variables (see Table 3). Second, while scores on the self-monitoring scale proved to be associated with attribution, they were not related to attention. Third, nondates in the high-exclusiveness condition were rated more extremely and more confidently than were nondates in the low-exclusiveness condition even though they were awarded less attention.

Consideration of the putative function of attribution processes to make the social environment more predictable, and hence more susceptible to control, led us to hypothesize that there may be stable individual differences in the desire for such predictability. We hoped that scores on Snyder's Self-Monitoring Scale might be indicants of such differences; we reasoned that the evidence which demonstrates that high self-monitoring perceivers depend more upon cues provided by others to guide their own social behavior than do low self-monitoring perceivers suggests that high scorers on this scale may be habitually more concerned with making accurate predictions about their social environment.

The positive and significant relationships which were found between an individual's self-monitoring score and the attention he or she awarded the prospective date, the extremity and the confidence of ratings of that other, as well as memory of and attraction to the other, are consistent with our reasoning. It might be noted, too, that these results suggest that high self-monitoring individuals do not straightforwardly and simple-mindedly copy the cues provided by another's behavior to guide their own; rather, our findings indicate that these individuals expend perceptual/cognitive time and effort to discern the contingencies which underlie the other's behavior.

While the attention and memory results are generally straightforward and as expected, the attribution results invite further comment. It will be recalled that while neither the extremity ratings nor the confidence ratings of the zero-exclusiveness condition differed from those of the other conditions, within the zero-exclusiveness condition extremity and confidence of trait ratings were not systematically related to each other. By comparison, extremity and confidence of trait ratings for the prospective date were highly correlated in the other conditions.

These findings suggest that extremity and confidence of trait ratings served different functions in the two situations in which ratings were made. In particular, it suggests that those perceivers who were dependent upon the other for their dating outcomes tried to construct a coherent perception of that other (cf. Neisser, 1966) as evidenced by the kind of cognitive constructions (i.e., dispositional attributions) they produced, but that those perceivers who did not anticipate dependence on the other did not attempt to construct such a systematic picture.

Perhaps more importantly, the results of these internal analyses investigating the relationship between extremity and confidence support the primary findings of this study and the conclusion that schemata of the attribution process which are developed from in vitro observations of the laboratory, and which neglect the motivational bases of these processes, may be at variance with how these processes operate in vivo. It seems fair to say that our zero-exclusiveness condition closely approximates the typical person perception laboratory situation. In such situations, the perceiver typically observes, or is given information about, stimulus persons with whom he anticipates little or no future interaction (and, in some cases, he is even aware that the stimulus person does not exist). In addition, it is typical of these situations that the perceiver might not even notice the stimulus person but for the experimenter's request that he read about or watch the stimulus person to evaluate him on a questionnaire. If the typical person perception study participant performs similarly to our zero-exclusiveness condition perceivers, their ratings of the stimulus person may be completed unsystematically with respect to confidence and extremity. Thus, whether their evaluations are representative

of the type of evaluations they would spontaneously make under more naturalistic conditions is in doubt. At the least, the present findings suggest that the terms "dispositional attribution" and "rating" should not be used interchangeably as they often are in the person perception literature.

Finally, we might comment upon the general role of motivational factors in the attribution process. In his discussion of attribution processes in the context of control, Kelley (1972a) states, "We might simply leave our analysis at the point to which we have brought it—with the recognition that attributions are often reasonable but that they are also often influenced by personal interest, emotional considerations, and such" (p. 22). The results of the present study allow us to entertain the thesis that the conditions which provide the motivation for the perceiver to initiate the attribution process in first place may be the very conditions under which he is likely to invest "personal interest, emotional considerations, and such" in the outcome of that causal analysis (cf. Berscheid & Graziano, in press, for further discussion of, and evidence relating to, this proposition).

In addition, and in accord with contemporary recognition that perception, memory, and cognition are so inextricably interwoven that it is difficult to study each separately (e.g., Flavell, 1970; Neisser, 1966), the present study demonstrates that all of the data-processing operations of the social perceiver—the collection of data (attention), the selective storage and retrieval of data (memory), as well as inferential extrapolation on the basis of the data (attribution)—are part of a unified whole and may be viewed as manifestations of an underlying motivation to predict and control the social environment.

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