

Target Entitativity: Implications for Information Processing About Individual and Group Targets

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It is hypothesized that perceptions of *entitativity* (i.e., seeing social targets as possessing unity and coherence) have important implications for how one organizes information about, and forms impressions of, individual and group targets. When perceivers expect entitativity, they should form an integrated impression of the target, resulting in on-line judgments. However, when perceivers expect little entitativity, they should not process target-relevant information in an integrative fashion, resulting in memory-based judgments. Although many factors affect perceptions of entitativity, the current study focused on expectations of similarity and behavioral consistency. It was predicted that in general, perceivers expect greater entitativity for individual than group targets. However, when explicitly provided with similar expectancies of entitativity, information processing would be similar for both individual and group targets. Two experiments supported these predictions, using recall, memory-judgment correlation, and illusory correlation measures.

Social perception involves the goals, knowledge, and abilities of observers, as well as the nature of the targets they encounter and evaluate. For instance, it has been demonstrated that perceivers who possess different goals for understanding social targets process information about these targets differently (e.g., Devine, Sedikides, & Fuhrman, 1989; Hamilton, Katz, & Leirer, 1980; McConnell, Sherman, & Hamilton, 1994b; Srull, Lichtenstein, & Rothbart, 1985). Additional evidence suggests that even when perceivers possess the same processing goal and are presented with the same information, their memories (Lichtenstein & Srull, 1987; Srull, 1981; Srull et al., 1985) and judgments (McConnell et al., 1994b) vary as a function of whether the target they encounter is an individual or a group. The present research explored the hypothesis that perceivers' expectations about target entitativity are important in accounting for these differences in the way people process information about individuals and groups.

The term *entitativity*, coined by Campbell (1958), refers to

the perception that a social aggregate is perceived as having "the nature of an entity, of having real existence" (p. 17). Social targets can vary along a continuum ranging from low (e.g., shoppers in a grocery store or a person subject to frequent mood swings) to high (e.g., members of a college fraternity or a person whose behavior is quite predictable) entitativity. Although all social entities must display some degree of entitativity to be perceived as a social unit, several factors will affect how strongly a social target is perceived as possessing entitativity. In addition to the Gestalt principles (e.g., similarity or proximity) identified by Campbell (1958) as important components of entitativity, Hamilton and Sherman (1996) have suggested that additional qualities will influence perceptions of entitativity, including organization among various elements of social entities, interdependence among social entities, and expectations of behavioral consistency. As a first step in an experimental examination of entitativity, we manipulated perceptions of similarity and behavioral consistency jointly, to observe how perceptions of entitativity affect social information processing and judgments.

Although both individuals and groups can display varying degrees of entitativity, we have proposed that perceivers hold different expectancies about the amount of entitativity in individual and group social targets (Hamilton, 1991; Hamilton & Sherman, 1996; McConnell et al., 1994b). Perceivers typically expect unity and coherence in the traits of individuals. These strong expectations of unity lead perceivers to search for consistencies in target behaviors, to form coherent and stable impressions of individuals (Asch, 1946). On the other hand, we proposed that perceivers do not hold the same strong expectancies of entitativity for the behaviors of group members. Without expectations of target unity and coherence, perceivers typically will not seek to form strong overall group impressions or to reconcile behav-

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ioral inconsistencies as they encounter target-relevant information.

These differences in how perceivers manage information about individual and group targets should lead to important differences in the type of social information processing used by perceivers. Because perceivers will attempt to form organized and coherent impressions of individual targets as they process target-relevant behaviors, impressions of individual targets should be made in an *on-line* fashion (Hastie & Park, 1986). However, because perceivers are not expected to reconcile and integrate group behaviors into a meaningful and coherent overall impression, judgments of group targets should be *memory-based*.

When perceivers produce on-line judgments, they form their evaluation about the target at the time they initially process and encode target-relevant behaviors. Thus, early behavioral information is especially influential in impression formation and is better recalled than behavioral instances that occur after an initial impression develops. Also, perceivers should be able to recall a relatively large amount of information about the target because the active integration of target-relevant behaviors during encoding will result in many associative links in memory, aiding information retrieval (Asch, 1946; Hamilton et al., 1980; Srull & Wyer, 1989).

In contrast, memory-based judgments are not made until the time that such a judgment is required. Rather than forming an integrated impression of the target, perceivers encode but do not integrate the behavioral information. This lack of elaborative encoding leads to poorer overall memory for the target's behaviors, and recall is best for the most recently encountered pieces of information. Further, because memory-based judgments are based on a memory search at the time of judgment, there is a correlation between judgment and the content of what information is available in memory (Hastie & Park, 1986; Sherman, Zehner, Johnson, & Hirt, 1983).

In an earlier study, we (McConnell et al., 1994b) found that perceivers typically formed on-line impressions of individual targets but formed memory-based judgments of group targets. This was indicated by better recall of behaviors about individual targets than group targets (replicating the findings of Srull et al., 1985), better recall of statements presented early (relative to late) about individual targets than group targets, and faster recognition of statements associated with individual targets than group targets.

Thus, the McConnell et al. (1994b) study found support for our contention that people process social information differently for individual and group targets. However, note that our framework suggests that these differences in information processing will be influenced both by the processing goals that perceivers adopt and by their expectations of target entitativity. McConnell et al. (1994b) manipulated the perceivers' processing goals by giving participants instructions that encouraged (impression set) or discouraged (comprehensibility set) integrative information processing. In keeping with our model, those who attempted to form strong impressions about social targets showed evidence of integrative information processing and on-line impressions, regardless of target type. Similarly, those who were inhibited from forming integrative impressions about social targets (either individuals or groups) showed evidence of nonintegrative infor-

mation processing and memory-based judgments, regardless of target type. These findings supported our predictions that processing goals influence how social information is organized and how social judgments are rendered.

The current research builds on and extends this line of investigation, by using a second strategy in testing our proposed social information processing model. In this approach, we directly manipulated perceivers' expectations of target entitativity, which in turn should influence subsequent processing (integrative vs. nonintegrative) and judgments (on-line vs. memory-based) about social targets (individual vs. group).

Even if perceivers generally have different expectancies about the entitativity of individuals and groups, there will be exceptions. For example, consider an individual who is moody and frequently engages in spontaneous, impulsive behaviors. A perceiver would not expect a high degree of entitativity for this person, and it would be difficult to form a well-integrated impression of the individual. Instead, the perceiver would expect such a person to perform numerous behaviors that were difficult to integrate and reconcile with each other. Without the expectation of a coherent constellation of behaviors from which to form a stable impression, the perceiver would be less likely to process target-relevant information in an integrative fashion, and thus, judgments of the individual would be memory-based.

Conversely, some groups (e.g., students in close-knit fraternities and sororities or members of religious cults) may be expected to display a relatively high degree of entitativity. In such cases, perceivers would be more likely to expect that any particular group member would behave consistently across different situations and in a manner similar to other group members. In fact, perceivers might believe that they can form coherent impressions of such groups. If so, perceivers should process behavioral information about members of such groups in an integrative fashion, resulting in on-line impression formation.

In keeping with these hypothesized processing differences, Srull et al. (1985) found that participants recalled more expectancy-inconsistent behaviors about *meaningful* groups (in our terms, groups perceived as relatively high in entitativity) but more expectancy-consistent behaviors about *nonmeaningful* groups (i.e., groups perceived as relatively low in entitativity). This difference in recall performance for meaningful (compared with nonmeaningful) group targets might be interpreted as reflecting on-line judgments of groups high in entitativity and memory-based judgments for groups low in entitativity.

Thus, expectancies about target entitativity are proposed to influence the processing of social information about individuals and groups. In the current study, we manipulated expectations of similarity and behavioral consistency. If the targets of social perception, individuals and groups, are expected to demonstrate similarity and consistency in their behaviors, perceivers should be more inclined to form target-relevant characterizations (e.g., personality ascriptions or group characterizations), to better understand and predict the behavior of these targets in the future. In general, perceptions of similarity and behavioral consistency represent important components of social targets that are expected to demonstrate high degrees of entitativity (Hamilton & Sherman, 1996).

As already indicated, perceivers expect greater entitativity for individual targets than for group targets, producing more

integrative information processing and more on-line judgments for individual targets than for group targets (as seen in McConnell et al., 1994b). However, specific expectations of entitativity may alter or complement these "default" processing strategies. Through manipulations of perceived similarity and consistency, perceptions of target entitativity should be influenced, resulting in integrative information processing and on-line judgments for groups (as well as individuals) expected to be high in entitativity and nonintegrative information processing and memory-based judgments for individuals (as well as groups) expected to be low in entitativity. Such a pattern of results would provide strong evidence that expectancies of entitativity are an important determinant of the type of social information processing used by perceivers in forming impressions of social targets. Two experiments were conducted to test these hypotheses.

Experiment 1: Perceived Target Entitativity in a Single Target Paradigm

In Experiment 1, participants read about either an individual or a group target who performed a series of behaviors. Participants were assigned to one of three conditions: no information (NI), high-entitativity (HE) expectancy, or low-entitativity (LE) expectancy. Participants in the NI condition received no information about entitativity. In the NI condition, we predicted stronger evidence of integrative information processing and on-line judgments for the individual than for the group target, replicating the results of McConnell et al. (1994b). The other experimental conditions manipulated expectancies of target entitativity. In the HE condition, participants were given an expectancy that the target (individual or group) should manifest a high degree of entitativity. With such an expectation, integrative processing and on-line judgments should result for both individual and group targets. Other participants were led to expect a target low in entitativity (LE condition). In this case, nonintegrative processing and memory-based judgments should be observed for both group and individual targets. Thus, similar processing outcomes for both target types were expected under HE instructions (i.e., integrative processing) and LE instructions (i.e., nonintegrative processing). Table 1 illustrates the specific pattern of predicted results.

Table 1
Predictions for Information-Processing Outcome as a Function of Target Type and Target Expectancy

Target type	Target expectancy		
	HE	NI	LE
Individual	Integrative	Integrative	Nonintegrative
Group	Integrative	Nonintegrative	Nonintegrative

Note. HE = high-entitativity expectancy; NI = no information; LE = low-entitativity expectancy. Integrative processing would be demonstrated by more statements recalled, primacy effects in recall, and the absence of memory-judgment correlations. Target judgments would be formed on-line. Nonintegrative processing would be demonstrated by fewer statements recalled, recency effects in recall, and the presence of memory-judgment correlations (i.e., memory-based judgments of the target).

Method

Participants

At Indiana University, 108 introductory psychology students participated, in return for research-experience credit. They were randomly assigned (18 per condition) to a 3 (target expectancy: NI, HE, or LE) \times 2 (target type: individual or group) factorial design.

Target Type Instructions

Participants in group-target conditions were told, "In this study, you will be reading a series of behaviors that were performed by members of a real group. To make things easy, we will refer to this group as Group A." Participants in the individual-target conditions were told, "In this study, you will be reading a series of behaviors that were performed by a real person named Jim."

Target Expectancy Instructions

After the target type instructions, participants were given additional instructions to induce an expectancy of high entitativity or low entitativity or were given no expectancies about entitativity.

Participants in the HE-group-target condition were told, "The members of Group A are very similar to each other and do not differ in many ways from each other. The members come from similar backgrounds and have the same opinions, similar important beliefs, and similar personalities. Across a variety of situations, members of Group A will act in a similar manner." Participants in the HE-individual-target condition were told, "Jim is a person who is quite predictable and consistent. Jim's personality is easy to characterize, and his mood is fairly constant across time and across different situations."

Participants in the LE-group-target condition were told, "The members of Group A are very diverse and differ in many ways from each other. The members come from different backgrounds, have different opinions, different important beliefs, and different personalities. Across a variety of situations, members of Group A will act in a different manner." Participants in the LE-individual-target condition were told, "Jim is a person who is quite unpredictable and spontaneous. Jim's personality is difficult to characterize, and his mood changes from one time to the next and from one situation to another."

Stimuli

Each participant read 24 behavior sentences, 16 desirable (e.g., "Jim saves cans and bottles for recycling") and 8 undesirable (e.g., "A member of Group A often forgets family birthdays") about the target (either Jim or Group A), each presented for 8 s on a computer monitor. Sentences were presented in a randomized order designed to ensure that no more than three items from a particular valence category (desirable or undesirable) could be consecutively repeated.

Procedure

The experiment was conducted on individual computer workstations. After participants received target type and target expectancy instructions, they were told, "Please read each statement carefully as it appears on the screen. Later, we will ask you some questions about the information you've read." Participants read the statements and then completed a 4-min filler task (solving math problems), to eliminate short-term memory effects. Following the filler task, participants were provided with a blank piece of paper and were instructed to write down as many of the target's behaviors as they could recall in an 8-min period. If they could not recall a behavior completely, they were encouraged to write down as much of the sentence as they could remember. Afterwards, participants

were asked to rate, on a scale ranging from 1 (*strongly dislike*) to 10 (*strongly like*), how much they thought they would like members of Group A (or Jim).

Results

Overview of Analyses

Three measures were examined for evidence of integrative versus nonintegrative information processing: amount of free recall, primacy in recall, and the correlation between the content of free recall and target evaluations. Greater overall recall and primacy effects in recall were expected for high-entitativity social targets (i.e., HE-individual, HE-group, and NI-individual) than for low-entitativity social targets (i.e., LE-group, LE-individual, and NI-group), where poorer recall and recency effects in recall should occur. Each of these measures was assessed by analyses of variance (ANOVAs), followed by specific planned contrasts comparing the three conditions expected to demonstrate integrative information processing with the three conditions expected to reveal nonintegrative information processing.¹

Although our hypotheses predicted that the effect of target type (more integrative processing for individual than for group targets) would vary as a function of target expectancy, the nature of this prediction (differences between target types in one condition but similarities between target types in the other two conditions) severely limited the ability of observing a significant ordinal interaction. Further, Rosenthal and Rosnow (1985; Rosnow & Rosenthal, 1989) argued that the appropriate way to test such specific a priori predictions was by planned contrasts rather than two-way ANOVA interactions. Because our model made specific and a priori predictions, we used planned comparisons as the principal test for our hypotheses.

In addition to these between-subject analyses, memory-judgment correlations were assessed, as an indicator of whether participants formed on-line (no correlation between target evaluation and the content of recall about the target) or memory-based (a positive correlation between target evaluation and the content of recall about the target) judgments.

Memory Measures

Two judges who were unaware of the experimental hypotheses evaluated participants' free recall reports, by means of a gist criterion. Interjudge agreement was high (92%). In cases of disagreement, the decision of a third judge (also unaware of the hypotheses) determined whether the response met the criterion. The total number of statements correctly recalled (out of 24 presented statements) served as the free recall dependent measure. Following McConnell et al. (1994b), a second dependent measure, the primacy index, was created, by subtracting the proportion of behaviors recalled from the last 12 items of the presentation from the proportion of behaviors recalled from the first 12 items. A positive primacy index indicated that a participant recalled more behaviors from the first half of the stimulus presentation.

Free recall. According to our hypotheses, there should be better recall performance when expectations of entitativity were high (HE-individual, HE-group, NI-individual) than when

Table 2
Free Recall and Primacy Index Measures for Experiment 1 as a Function of Target Type and Target Expectancy

Target	Target expectancy		
	HE	NI	LE
Free recall			
Individual	12.78	12.94	10.28
Group	10.72	8.94	8.33
Primacy index			
Individual	0.11	0.05	-0.07
Group	0.08	-0.08	-0.07

Note. HE = high-entitativity expectancy; NI = no information; LE = low-entitativity expectancy. Large positive values are indicative of integrative processing.

expectations of entitativity were low (LE-group, LE-individual, and NI-group). We analyzed the number of statements recalled in a 3 (target expectancy) \times 2 (target type) ANOVA. The means from the ANOVA are reported in Table 2. A main effect of target type, $F(1, 102) = 21.14, p < .001$, revealed that participants recalled more information about individual targets ($M = 12.00$) than group targets ($M = 9.33$). Also, a main effect of target expectancy, $F(2, 102) = 6.15, p < .01$, demonstrated that participants recalled the most information in the HE conditions ($M = 11.75$) and the least information in the LE conditions ($M = 9.31$). The interaction did not achieve significance ($F < 1.4$).

To test the specific a priori prediction, a planned contrast was conducted comparing the three conditions expected to reveal greater integrative processing (HE-individual, HE-group, and NI-individual) to the three conditions expected to reveal poorer integrative processing (LE-group, LE-individual, and NI-group). As predicted, the contrast found that participants in the former conditions recalled significantly more behaviors ($M = 12.17$) than did participants in the latter conditions ($M = 9.18$), $F(1, 106) = 26.10, p < .001$.

Primacy in recall. In addition to differences in amount of recall, our hypotheses predicted that integrative processing would produce better recall for information encountered early during presentation but that there would be evidence of recency effects in recall in the conditions where expectations of target entitativity were low. We analyzed the primacy index (where positive values indicated better recall of early, relative to late, information) in a 3 (target expectancy) \times 2 (target type) ANOVA. The means are reported in Table 2. A main effect of target expectancy, $F(2, 102) = 3.18, p < .05$, was found, revealing that participants recalled more early information in the HE conditions ($M = 0.09$) and recalled more recently presented infor-

¹ Although we had no predictions about whether the likability ratings would vary as a function of experimental condition, we analyzed them in a 3 (target expectancy) \times 2 (target type) ANOVA. The target evaluation did not vary across conditions ($M = 6.28$). In addition, we also examined the likability ratings in a planned contrast between the conditions expected to demonstrate integrative and nonintegrative processing. This contrast, also, was nonsignificant ($F < 1$).

mation in the LE conditions ($M = -0.07$). No other effects were significant.

Again, a planned contrast was conducted, to test our hypothesis comparing the three conditions expected to reveal greater integrative processing to the three conditions expected to reveal less integrative processing. As predicted, participants in the HE-individual, HE-group, and NI-individual conditions recalled more information from early in the presentation ($M = 0.08$) than participants in the LE-individual, LE-group, NI-group conditions ($M = -0.07$), $F(1, 106) = 8.18, p < .01$. Moreover, participants in the former conditions demonstrated a significant primacy effect (i.e., primacy indices greater than zero), $t(53) = 3.60, p < .001$, whereas participants in the latter conditions demonstrated a nonsignificant trend toward recency in recall (i.e., primacy indices less than zero), $t(53) = -1.55, p < .13$.

Memory-Judgment Correlations

The behaviors recalled by each participant were used to create an evaluative index, by summing the ratings provided by pretest participants (none of whom participated in the current study) for the items each participant recalled about the target and dividing by the total number of items recalled (Lichtenstein & Srull, 1987; McConnell et al., 1994b). This index was correlated with the likability rating for the target.

We predicted strong memory-judgment correlations only in the conditions where expectations of target entitativity were low (LE-group, LE-individual, and NI-group). As Table 3 illustrates, there was a significant positive correlation in the LE-individual condition, $t(17) = 3.15, p < .01$, and a marginally significant positive correlation in the LE-group condition, $t(17) = 2.01, p < .07$.²

In a fashion similar to our planned comparisons, we examined the memory-judgment correlations (using all of the behaviors recalled by each participant), within the three conditions expected to show memory-based judgments and the three conditions expected to reveal on-line judgments. As expected, we found significant memory-judgment correlations in the former conditions ($r = .49$), $t(53) = 4.10, p < .001$, but not in the latter conditions ($r = .11, t < 1$). Thus, we observed good evidence of memory-judgment correlations in the conditions where memory-based judgments were expected and no evidence of memory-judgment correlations where on-line judgments were anticipated.

Table 3
Memory-Judgment Correlations for Experiment 1

Target type	Target expectancy		
	HE	NI	LE
Individual	0.11	-0.13	0.62**
Group	0.33	0.39	0.45†

Note. HE = high-entitativity expectancy; NI = no information; LE = low-entitativity expectancy.

† $p < .10$. ** $p < .01$.

Discussion

These results supported our contention that perceivers' expectations about the entitativity of social targets are an important determinant of the way social information about the targets is processed and used in forming impressions of the targets. Participants in conditions designed to produce greater perceived entitativity showed strong indications of integrative processing and on-line judgments. Evidence from the memory measures (greater recall and primacy effects in recall) and an absence of memory-judgment correlations supported this hypothesis. However, when perceivers processed information about targets with little expected entitativity, their ability and motivation to form elaborative and organized impressions should be disrupted, leading to less integrative information processing and memory-based judgments. Consistent with this proposal, we observed poorer recall, recency effects in recall, and memory-judgment correlations, in such conditions. In addition to finding good support for our hypotheses, these results replicated previously observed differences between individual and group targets, in terms of amount of recall, primacy-recency effects in recall, and memory-judgment correlations (Lichtenstein & Srull, 1987; McConnell et al., 1994b; Srull, 1981; Srull et al., 1985).

Experiment 2: Perceived Target Entitativity in an Illusory Correlation Paradigm

Given the results of Experiment 1, it is interesting to consider the evaluative implications that such processing differences might have on the perceptions of individual and group social targets. One situation in which information processing has been shown to play an important role in social perception is in the illusory correlation paradigm (for reviews, see Hamilton & Sherman, 1989; Mullen & Johnson, 1990). Research on illusory correlation has demonstrated that differences in target judgment (on-line vs. memory-based) produce differential biases of evaluatively equivalent targets.

In the typical illusory correlation experiment, participants read behavioral statements about members of two groups. Both groups engage in the same proportion of desirable to undesirable behaviors (usually 2 to 1), but more information is presented about the majority group than about the minority group. Because of the equal proportions of desirable to undesirable behaviors,

² Schmidt (1991) suggested that the initial items recalled, because of their especially strong availability, may be the most influential in terms of forming target-relevant judgments. Thus, in addition to examining all free recall items that met gist criterion, we also analyzed only the first five items that were recalled by the participant (Hastie & Park, 1986; McConnell et al., 1994b). When considering only the first five items recalled, we observed meaningful correlations in the three conditions where memory-based judgments were predicted. Specifically, there was a marginally significant positive correlation in the NI-group condition ($r = .45$), $t(17) = 2.00, p < .07$, a significant positive correlation in the LE-group condition ($r = .51$), $t(17) = 2.34, p < .04$, and a marginally significant positive correlation in the LE-individual condition ($r = .45$), $t(17) = 2.01, p < .07$. As expected, no significant memory-judgment correlations were found in the remaining three conditions (where on-line judgments were predicted). These results provided further support for our hypotheses.

group membership should not be diagnostic of the positivity of members of the groups. However, participants typically evaluate the majority group more favorably than the minority group.

The prevailing explanation for this finding has been that infrequent information categories are salient and that the distinctiveness (on the basis of infrequency) of minority groups and of relatively infrequent behaviors (typically negative) leads to enhanced encoding of these items (Hamilton & Gifford, 1976; McConnell, Sherman, & Hamilton, 1994a).³ Then, at the time of a memory-based judgment (the presumed default for group targets), these well-encoded behaviors are highly available and lead to overestimations of the number of undesirable behaviors performed by minority group members. These overestimations, in turn, bias subsequent evaluations of the groups. However, when participants process social information in an integrative fashion by impression-set instructions (McConnell et al., 1994b; Pryor, 1986) or by considering individual targets (McConnell et al., 1994b; Sanbonmatsu, Sherman, & Hamilton, 1987), the bias is attenuated or even reversed.

McConnell et al. (1994b) suggested that expectancies of target entitativity might be critical for these differential evaluative outcomes for minority and majority targets. With group targets (assumed, in the absence of specific knowledge, to be relatively low in entitativity), one observes memory-based judgments and the resulting biases associated with highly distinctive (infrequent minority target) behaviors. On the other hand, individual targets (assumed to be relatively high in entitativity) produce on-line judgments, and the bias against minority targets does not emerge. Note, however, that the role of perceived target entitativity in illusory correlation formation has not been directly tested to this point. Although the results reported by McConnell et al. (1994b) are compatible with the notion that expectancies of target entitativity mediate evaluative biases about majority and minority targets, a direct empirical manipulation of target entitativity is necessary to test this claim.

Therefore, Experiment 2 was conducted to investigate the formation of social judgments (on-line vs. memory based) and the production of evaluative biases (illusory correlations), under different target conditions (individual vs. group) and different expectancies of target entitativity. It was expected that poorer recall, recency effects in recall, positive memory-judgment correlations, and evaluative preferences for majority targets would be observed for group targets (relative to individual targets, on the basis of differences in perceivers' default expectancies about these targets). However, we also predicted that these results would be moderated by expectations of similarity and behavioral consistency. Specifically, it was expected that participants would demonstrate nonintegrative information processing for low-entitativity targets (regardless of target type) and show strong integrative information processing for high-entitativity targets (regardless of target type). Such an outcome would provide empirical support for the claim that perceptions of target entitativity are important for invoking different social information processing mechanisms that are, in turn, responsible for evaluative biases between objectively equivalent targets (i.e., illusory correlation formation).

Experiment 2 also evaluated another possible account for differences in social information processing for individual and group targets that have been observed in past work (e.g.,

McConnell et al., 1994b; Sanbonmatsu et al., 1987). The stronger evidence of memory-based judgments observed for group targets (compared with individual targets) in the illusory correlation paradigm has been attributed to differences in expectancies of entitativity for individual and group targets. However, an alternative explanation might suggest that the observed memory-based judgments for groups could be the product of information load rather than differences in expectations of target entitativity. Previous illusory correlation studies using group targets have presented stimulus behaviors that were associated with both a group label and an individual's name (e.g., Tom, a member of Group B). Thus, group-target illusory correlation studies provide information about social targets on two different levels (groups and individuals), whereas individual-target illusory correlation studies provide information only on one level (individuals). Given this difference, a "load explanation" might predict that the memory-based judgments for group targets (relative to individual targets) might occur because of the additional load of processing and storing information about the individual and the individual's group simultaneously, thereby reducing the cognitive resources available to actively integrate and reconcile target-relevant information in an elaborative fashion.

To examine this alternative explanation, participants were assigned to one of three target type conditions. Some participants read information about two individuals (individual-targets condition). Other participants (group-members-with-names condition) read about members of two groups with different individual names associated with each group-related behavior. The remaining participants (group-members-without-names condition) read about members of two groups without individual names associated with each behavior. If the differences between individual and group targets are the product of differences in expectancies of entitativity for individual and group targets, we would observe similar outcomes for both group-target conditions. However, if processing load played a role in the differences between individual and group targets observed in previous studies, we would observe memory-based judgments for participants in the group-members-with-names condition but not for participants in the group-members-without-names condition. Indeed, if processing load is an important component of the group illusory correlation effect, one might even predict similarities between the individual-target and group-members-without-names conditions (with both revealing on-line judgments).

Method

Participants

At Indiana University, 162 introductory psychology students participated, in return for research-experience credit. They were randomly

³ Although the distinctiveness-based account of illusory correlation has received wide support, alternative explanations exist, including an exemplar model of illusory correlation (Smith, 1991) and an account that relies on memory loss (Fiedler, 1991; Fiedler, Russer, & Gramm, 1993). Even though each of these accounts could contribute to the formation of illusory correlations (for an extended discussion, see McConnell et al., 1994a), the distinctive quality of rare minority group behaviors has been repeatedly demonstrated (e.g., Hamilton, Dugan, & Trolier, 1985; Johnson & Mullen, 1994; McConnell et al., 1994a; Stroessner, Hamilton, & Mackie, 1992).

assigned (18 per condition) to a 3 (target expectancy: NI, HE, or LE) \times 3 (target type: individual, group targets with individual names, or group targets without individual names) factorial design.

Stimuli

Participants read statements about two targets (two individuals or two groups, depending on target condition). Twice as many items were presented about the majority target as about the minority target. For each target (majority and minority), there was a 2-to-1 ratio of desirable-to-undesirable behaviors. Thus, participants read 24 behavior sentences (16 desirable and 8 undesirable) about the majority target and 12 behavior sentences (8 desirable and 4 undesirable) about the minority target. Pretesting ensured that the overall evaluation of both desirable and undesirable behaviors ascribed to the majority and minority targets were equivalent.

For participants in the individual-target conditions, two male names (Jim and Bob) were alternately assigned as the majority and minority individuals. For group-target participants, two group labels (Group A and Group B) were alternately assigned as the majority and minority groups. This counterbalancing procedure produced no effects; thus, it is not discussed further.

In the individual-target conditions, the two male names were associated with the behaviors (e.g., "Jim saves cans and bottles for recycling."). In the group-members-with-names conditions, 36 common male names were randomly paired with the 36 behaviors (e.g., "Craig, a member of Group A, saves cans and bottles for recycling."). Finally, for participants in the group-members-without-names conditions, only the group label and behavior were presented (e.g., "A member of Group A saves cans and bottles for recycling.").

Target Type Instructions

Participants in the individual-target conditions were told, "In this study, you will be reading a series of behaviors performed by two real people named Jim and Bob. These two people have been randomly paired together. They may be quite similar or quite different." In group-target conditions (both group members with names and group members without names), participants were told, "In this study, you will be reading a series of behaviors that were performed by members of two real groups. To make things easy, we will refer to them as Group A and Group B. These two groups have been randomly paired together. They may be quite similar or quite different."

Target-Expectancy Instructions

After receiving target orientation instructions, participants were given additional instructions, to induce an expectancy of high target entitativity or low target entitativity, or were given no expectancies about target entitativity. The instructions provided to participants were the same as those used in Experiment 1 except that they were presented twice (once each for the majority and minority targets). Although there were two group conditions in Experiment 2 (group members with names and group members without names), entitativity instructions did not vary between these two conditions. As in Experiment 1, participants in the NI condition were not given any instructions regarding target entitativity.

Procedure

The experiment was conducted on individual computer workstations. After participants received target type and target expectancy instructions, they were told, "Please read each statement carefully as it appears on the screen. Later, we will ask you some questions about the information you've read." The 36 behavior statements were presented in a randomized presentation order on the computer monitor for 8 s each. Participants

then completed a 4-min filler task, to eliminate short-term memory effects, and finally responded to a free recall task, a frequency-estimation task, and an evaluation of how likable they found each target.

Free recall. After the filler task, participants were provided with a blank piece of paper and were instructed by the computer to write down as many of the targets' behaviors as they could recall in a 10-min period. If they could not recall a behavior completely, they were encouraged to write down as much of the behavior as they could remember.

Frequency estimates. After the free recall task, participants were told that the majority target (individual or group) had performed 24 behaviors and were asked to estimate how many of these were undesirable. Next, participants were told that the minority target (individual or group) had performed 12 behaviors and were asked to estimate how many of these were undesirable.

Likability ratings. Participants were asked to rate, on a scale ranging from 1 (*strongly dislike*) to 10 (*strongly like*), how much they thought they would like members of Group A and B (or Jim and Bob).

Results

Four separate issues were addressed in our analyses. First, in the two group-target conditions, did we observe meaningful differences in information processing and evaluations as a function of whether individual names were associated with group behaviors? Before conducting the principal analyses that bore on our hypotheses regarding expectations of target entitativity, we addressed this issue. Second, did we obtain differences in recall consistent with integrative and nonintegrative information processing in accordance with our hypotheses? Third, were significant memory-judgment correlations observed in the predicted conditions? Finally, did we find evidence of illusory correlations in situations expected to produce memory-based judgments but not in situations expected to induce on-line judgments?

Computation of Dependent Measures

Memory measures. We examined the amount of recall and primacy in recall, to test whether integrative social information processing was observed more strongly in conditions where participants expected targets high in entitativity than in conditions where participants expected targets low in entitativity. The same procedures described in Experiment 1 were used. Interjudge agreement (on statements recalled) between the two primary judges was quite good (94%).

Illusory correlation measures. Two dependent measures, liking bias and frequency-estimate bias, were computed, to assess the extent to which participants formed illusory correlations in their perceptions of the majority and minority targets. A liking bias index was derived for each participant, by subtracting their report of liking for the minority target from their report of liking for the majority target. A positive liking bias index reflected the traditional illusory correlation effect (i.e., an evaluative bias favoring the majority target). For frequency estimates, a bias index was constructed, by subtracting the proportion of desirable behaviors estimated for the minority target from the proportion of desirable behaviors estimated for the majority target. A positive frequency-estimate bias index reflected the traditional illusory correlation effect (i.e., reporting that the majority target engaged in proportionately more desirable behaviors than the minority target).

Did the Group Conditions Vary?

Our first analyses addressed the issue of whether presentation of both an individual's name and group membership constitutes a cognitive load that might produce less integrative processing for group (relative to individual) targets. If so, then the results would differ for the two group conditions (with and without names). To address this question, we conducted a series of 3 (target expectancy: NI, HE, or LE) × 2 (group-target type: with names or without names) ANOVAs on the memory and illusory correlation measures. As Table 4 illustrates, there was no effect of target type ($F_s < 1.2$) or interaction between target type and target expectancy ($F_s < 1.0$) on the amount of recall, the primacy index, the liking bias index, or the frequency-estimate bias index. Similarly inspection of the memory-judgment correlations for majority and minority targets revealed few differences between the group-with-names conditions and the group-without-names conditions. Out of six comparisons, there were two differences in terms of significance level (LE-majority target and NI-minority target). The reason for the discrepancy for the LE-majority target is unclear. In the NI-minority target case, although the correlation for the groups-without-names conditions was not significantly greater than zero (unlike the groups-with-names conditions), there was little difference in the strength of the correlations (.41 vs. .31).

The general similarities in memory-judgment correlations and the total absence of effects (main or interactive) between the group-with-names and group-without-names conditions on the two memory measures and two illusory correlation measures clearly demonstrate that cognitive load cannot account for the differences between individual and group targets observed in

Table 4
Comparison Between Groups-With-Names and Groups-Without-Names Conditions

Target type	Target expectancy		
	HE	NI	LE
Free recall			
Groups with names	10.50	8.44	7.67
Groups without names	10.44	9.39	9.28
Primacy index			
Groups with names	0.05	-0.10	0.00
Groups without names	0.13	0.01	0.00
Liking bias			
Groups with names	0.44	1.33	1.00
Groups without names	0.11	0.56	1.06
Frequency-estimate bias			
Groups with names	0.02	0.05	0.12
Groups without names	0.04	0.03	0.14
Memory-judgment correlations			
Majority target			
Groups with names	0.26	0.22	0.03
Groups without names	0.37	0.17	0.48*
Minority target			
Groups with names	0.13	0.41†	0.52*
Groups without names	0.00	0.31	0.62**

Note. HE = high-entitativity expectancy; NI = no information; LE = low-entitativity expectancy.
† $p < .10$. * $p < .05$. ** $p < .01$.

Table 5
Free Recall and Primacy Index for Experiment 2 as a Function of Target Type and Target Expectancy

Target	Target expectancy		
	HE	NI	LE
Free recall			
Individual	11.94	11.56	9.83
Group	10.47	8.92	8.47
Primacy index			
Individual	0.18	0.16	0.06
Group	0.09	-0.04	0.01

Note. HE = high-entitativity expectancy; NI = no information; LE = low-entitativity expectancy. Large positive values are indicative of integrative processing.

previous illusory correlation studies. Given the similarities in results for these two group conditions, subsequent analyses combine the group-target conditions, to provide clearer tests of our hypotheses.

Memory Measures

Free recall. We tested our hypotheses by following the same strategy as in Experiment 1. We first examined our dependent measures by means of ANOVAs and then conducted planned contrasts, to test our specific hypotheses. For amount of recall, we predicted that there would be better recall (indicative of integrative information processing) for targets high in perceived entitativity (HE-individual, HE-group, and NI-individual) than for targets perceived as low in entitativity (LE-group, LE-individual, and NI-group). The number of statements recalled by participants was examined in a 3 (target expectancy) × 2 (target type) ANOVA, and the means are reported in Table 5. A main effect of target type, $F(1, 156) = 7.06, p < .01$, revealed that participants recalled more information about individual targets ($M = 11.11$) than group targets ($M = 9.29$). Also, a marginal effect of target expectancy, $F(2, 156) = 3.00, p < .06$, demonstrated that participants recalled the most information in the HE conditions ($M = 10.96$) and the least information in the LE conditions ($M = 8.92$). The interaction did not achieve significance.

To test the specific a priori prediction regarding expectations of target entitativity, a planned contrast was conducted, which compared the conditions expected to reveal greater integrative processing with the conditions expected to reveal less integrative processing. As predicted, the contrast found that participants in the HE-individual, HE-group, and NI-individual conditions recalled significantly more behaviors ($M = 11.12$) than participants in the LE-group, LE-individual, and NI-group conditions ($M = 8.92$), $F(1, 160) = 11.21, p < .01$.

Primacy in recall. Similarly, we analyzed the primacy index in a 3 (target expectancy) × 2 (target type) ANOVA. The means are reported in Table 5. A main effect of target type was observed, $F(2, 102) = 6.01, p < .02$, revealing that participants recalled more early information about individual targets ($M = 0.14$) than group targets ($M = 0.02$). No other effects were significant.

Our specific hypothesis was tested by a planned contrast comparing the three conditions expected to reveal greater integrative processing with the three conditions expected to reveal less integrative processing. As expected, the contrast found that participants in the HE-individual, HE-group, and NI-individual conditions recalled more information from early in the presentation ($M = 0.13$) than participants in the LE-group, LE-individual, and NI-group conditions ($M = 0.00$); $F(1, 160) = 8.31, p < .01$. Participants for whom high expectations of target entitativity were predicted demonstrated a significant primacy effect, $t(71) = 3.95, p < .001$, but the remaining participants' recall did not demonstrate a significant recency effect ($t < 1$).

Memory-Judgment Correlations

As in Experiment 1, we used the behaviors recalled by each participant for each target (minority and majority), to create an index based on the pretest desirability norms for each target. Each index (minority and majority target) was correlated with the likability rating for its respective target for each experimental condition. Table 6 shows the zero-order correlations between the free recall index and likability ratings for minority and majority targets.

We predicted strong memory-judgment correlations in the conditions where perceivers would expect low entitativity. As Table 6 illustrates, there were strong positive correlations for the minority target in the NI-group, $t(35) = 2.26, p < .04$, LE-individual, $t(17) = 1.89, p < .08$, and LE-group, $t(35) = 4.02, p < .001$, conditions.⁴

Additional analyses collapsed across conditions, allowing us to examine the overall memory-judgment correlations in the conditions expected to reveal on-line judgments (HE-individual, HE-group, and NI-individual) and the conditions expected to demonstrate memory-based judgments (LE-group, LE-individual, and NI-group). As expected, memory-judgment correlations in the former conditions were not significant for either the majority target ($r = .17, t(71) = 1.43, ns$, or the minority target ($r = -.06, t < 1$). In the latter conditions, although the memory-judgment correlation did not achieve significance for the majority target ($r = .15, t(89) = 1.45, ns$, it was significant for the minority target ($r = .44, t(89) = 4.57, p < .001$).

Table 6
Memory-Judgment Correlations for Majority and Minority Targets in Experiment 2 as a Function of Target Type and Target Expectancy

Target type	Target expectancy		
	HE	NI	LE
Majority target			
Individual	0.09	0.20	-0.01
Group	0.28	0.17	0.21
Minority target			
Individual	-0.31	-0.10	0.43†
Group	0.05	0.36*	0.57**

Note. HE = high-entitativity expectancy; NI = no information; LE = low-entitativity expectancy.
† $p < .10$. * $p < .05$. ** $p < .01$.

Table 7
Liking Bias and Frequency-Estimate Bias Indices for Experiment 2 as a Function of Target Type and Target Expectancy

Target	Target expectancy		
	HE	NI	LE
Liking bias			
Individual	-1.61	-0.67	0.56
Group	0.28	0.94	1.03
Frequency-estimate bias			
Individual	-0.05	-0.05	-0.01
Group	0.03	0.04	0.13

Note. HE = high-entitativity expectancy; NI = no information; LE = low-entitativity expectancy. Positive bias indices reflect a memory-based illusory correlation (i.e., preferring the majority target to the minority target). Such an outcome would result from nonintegrative information processing.

In sum, we found strong evidence of memory-based judgments (for group and individual targets) for the minority target but not the majority target when participants should have held low expectations of target entitativity. In contrast, we observed no cases of significant memory-judgment correlations when participants should have expected targets high in entitativity. Although the absence of memory-judgment correlations for the majority target in the LE conditions was puzzling, the findings for the other three cases were consistent with our predictions.

Illusory Correlation Measures

Our predictions were rather straightforward. In cases where memory-based judgments were predicted (i.e., low perceived entitativity), we expected to observe evidence of illusory correlations (i.e., positive bias indices). However, in the conditions where on-line judgments were expected (i.e., high perceived entitativity), we predicted that illusory correlations would not form (i.e., the absence of positive bias values).

Evaluative bias index. The evaluative bias index (where larger values were indicative of liking the majority target more than the minority target) was examined in a 3 (target expectancy) × 2 (target type) ANOVA. The means are presented in Table 7. A main effect of target type, $F(1, 156) = 13.33, p < .001$, revealed that participants formed stronger illusory correlations about group targets ($M = 0.75$) than about individual targets ($M = -0.57$). Also, there was a significant main effect of target expectancy, $F(2, 156) = 5.41, p < .01$, showing that participants formed the strongest memory-based illusory correlations in the LE condition ($M = 0.87$) and the weakest memory-based illusory correlations in the HE condition ($M = -0.57$). The interaction did not achieve significance ($F < 1.5$).

To test the specific a priori prediction regarding expectations of target entitativity, a planned contrast was conducted, compar-

⁴ Similar analyses were conducted on the first five items recalled. The results of these analyses essentially paralleled the results found using all items recalled.

ing the conditions expected to reveal memory-based illusory correlations (LE-group, LE-individual, and NI-group) with the conditions expected to demonstrate the weakest memory-based illusory correlations (HE-individual, HE-group, and NI-individual). As expected, the contrast found that participants in the former conditions showed strong illusory correlations ($M = 0.90$), whereas participants in the latter conditions did not ($M = -0.43$); $F(1, 160) = 14.75, p < .001$. In fact, the illusory correlation evaluative bias indices of participants in the former conditions were significantly greater than zero, $t(89) = 4.03, p < .001$. Although participants in the latter conditions showed a trend toward demonstrating a reverse illusory correlation (see Sanbonmatsu et al., 1987), their bias indices were not significantly less than zero, $t(71) = -1.57, p < .13$. These data replicate findings reported by McConnell et al. (1994b) and Sanbonmatsu et al. (1987) regarding differences in illusory correlations between group and individual targets. But more important, they provide strong support for the hypothesis that expectations of target entitativity, and not target type per se, are responsible for these differences.

Frequency-estimate bias index. The frequency-estimate bias index (where larger values reflected a perception that the majority target engaged in proportionally more desirable behaviors than the minority target) was examined in a 3 (target expectancy) \times 2 (target type) ANOVA. The means are reported in Table 7. A main effect of target type was found, $F(1, 156) = 8.65, p < .01$, revealing that group-target participants reported that the majority target engaged in proportionately more desirable behaviors when compared with the minority target ($M = 0.07$) than did individual-target participants ($M = -0.04$). No other effects were significant.

Again, a planned contrast was conducted, comparing the LE-group, LE-individual, and NI-group conditions with the HE-individual, HE-group, and NI-individual conditions. The contrast found that participants in the former conditions showed strong illusory correlations ($M = 0.07$), whereas participants in the latter conditions did not ($M = -0.01$), $F(1, 160) = 5.05, p < .03$. Moreover, those in the former conditions had frequency-estimate bias indices that were significantly greater than zero, $t(89) = 2.96, p < .01$. Frequency-estimate bias indices for the remaining participants did not deviate significantly from zero ($t < 1$).

Discussion

The purpose of Experiment 2 was to replicate the findings of Experiment 1 and to explore the evaluative implications of these different forms of social information processing. As expected, participants provided with no information about target entitativity tended to rely on their default expectancies, forming on-line judgments for individual targets but rendering memory-based judgments for group targets. These results replicated Experiment 1 and are consistent with several findings in previous studies that have shown differences in how perceivers process information about individual and group social targets (e.g., McConnell et al., 1994b; Srull, 1981; Srull et al., 1985). Further, these participants demonstrated the formation of illusory correlations for group targets but not individual targets. These results replicate previous findings and are consistent with the thesis that

such biases are the products of memory-based judgments (McConnell et al., 1994b; Sanbonmatsu et al., 1987).

More important, Experiment 2 explicitly manipulated participants' expectations of target unity and coherence, to show that information processing and evaluative outcomes depend more on expectations of entitativity about a social target than on whether it is an individual or a group. Participants who anticipated targets high in entitativity showed evidence of highly integrative information processing (e.g., better recall, primacy effects in recall, and the absence of memory-judgment correlations) and did not show evidence of illusory correlations, regardless of whether they held this expectancy for individuals or groups.⁵ Similarly, participants who expected social targets with little entitativity showed evidence consistent with less integrative information processing (e.g., poorer recall, no primacy in recall, and the presence of positive memory-judgment correlations) and did demonstrate an evaluative bias against minority targets (i.e., memory-based illusory correlations), regardless of target type. This pattern of results provides strong support for the proposed framework.

Although these findings are supportive of an entitativity explanation, one alternative interpretation of the results (in both experiments) is that integrative processing in the HE conditions was triggered by the unexpected nature of the set of behaviors in this condition rather than expectations of target entitativity. That is, participants in the HE conditions expected a set of behaviors that were similar and consistent, and yet, the actual set of behaviors was clearly a mix of evaluatively positive and negative behaviors. Perhaps this violation of expectancies, and not simply the expectancy of entitativity, led participants to attend carefully to the behaviors and form on-line judgments. In this case, the undesirable behaviors were surprising (given an expectancy of high entitativity in a context of mostly desirable behaviors), and the observed integrative processing would result from the unexpectedness of these behaviors.

Despite the plausibility of such an account, two factors suggest that expectations of entitativity rather than the surprisingness of the undesirable behaviors provide a better account for the findings. First, in both experiments, we observed strong on-line judgments for individual targets in the NI conditions, indicating that an explicit expectation of entitativity (required to make inconsistencies surprising) is not necessary for the formation of on-line judgments. More important, there is evidence that people will engage in integrative processing for individual targets, for whom they likely have default expectations of enti-

⁵ One might predict that undesirable behaviors (i.e., inconsistent information) would be better recalled when judgments are made on-line instead of being memory based (because of the process of reconciling inconsistencies when forming strong impressions). However, because infrequent behaviors are perceived as salient and are better recalled when memory-based judgments occur (Hamilton et al., 1985; McConnell et al., 1994a), one would also expect better recall for undesirable behaviors when judgments are memory based. Thus, both processing goals lead to the same outcome (better recall for infrequent behaviors), but for different reasons (reconciling inconsistencies vs. salience of distinctive events). Analyses revealed that undesirable behaviors were recalled better than desirable behaviors in Experiment 1 ($M = .51$ vs. $M = .42$) and Experiment 2 ($M = .33$ vs. $M = .26$).

tativity, even in situations where surprising (i.e., unexpected or impression-inconsistent) behaviors are not encountered. Hamilton and Sherman (1996) discussed research that showed that perceivers who encounter information about individuals (in comparison with groups) that is devoid of inconsistent behaviors hold greater expectations of target entitativity (Susskind & Hamilton, 1994), show greater primacy effects in judgment (Manis & Paskewitz, 1987), and demonstrate greater organization of social information in recall (Stroessner, Hamilton, Acorn, Czyzewska, & Sherman, 1989). These findings suggest that elaborative processing results for individual, but not group, targets even when inconsistent (i.e., surprising) behaviors do not occur. We would thus argue that it is the expectancy of entitativity and not the expectancy-violating nature of the behaviors that triggered on-line judgments.

A second important point is that there is evidence that inconsistent or unexpected behaviors alone are not sufficient for producing integrative processing about social targets. For example, Srull et al. (1985) found that better recall for expectancy-inconsistent information than expectancy-consistent information (a consequence of integrative processing) occurred only when participants adopted strong impression-formation goals (e.g., expectation of future interaction with the target or goal of forming a strong impression of the target). When participants were given instructions that did not encourage strong integrative processing, recall for expectancy-inconsistent information was not better than expectancy-consistent information (Srull, 1981; Srull et al., 1985). These studies illustrate that encountering inconsistent behaviors alone does not result in integrative processing. Instead, perceivers must adopt an impression-formation goal, which can be accomplished through instruction sets (e.g., Hamilton et al., 1980; McConnell et al., 1994b; Srull et al., 1985) or expectations of entitativity (the current experiments), to produce strong integrative processing. It is this orientation toward impression formation that engages careful processing and extra attention to inconsistent behaviors.

In addition to providing support for the entitativity explanation, Experiment 2 tested, and ruled out, an alternative account for illusory correlation effects. Because previous group illusory correlation experiments provided information about different individuals who were members of two groups, findings of memory-based illusory correlation effects for groups could have been the product of additional processing load (reducing cognitive resources necessary to process information in an integrative fashion) associated with processing information about various individuals and the groups to which they belong. As a test of this possibility, some group targets were presented in the typical fashion (individual names associated with either Groups A or B), and other group targets were presented simply as unnamed members of either Groups A or B. Rather than finding differences between these two conditions, as a cognitive load explanation would predict, the results for these two conditions were virtually identical.

One surprising finding in Experiment 2 was the lack of significant memory-judgment correlations for the majority target in situations where expectations of target entitativity were low. Although the other memory-judgment data were consistent with our predictions, the reason for why this effect did not obtain for the majority target is unclear. As we have previously suggested

(McConnell et al., 1994b), it is perhaps more accurate to think of on-line versus memory-based judgments as existing along a continuum rather than being a pure dichotomy. It is possible that some degree of spontaneous trait extraction occurs (Uleman, 1987), though extensive integration and elaboration of this information do not take place (which is consistent with the poor overall recall and illusory correlations observed in these conditions). There may be some threshold amount of information required (exceeded only by the majority target) that allows spontaneous trait abstraction to occur.

General Discussion

We have proposed a framework that identifies a unifying theme for how perceivers form evaluations of, and represent information about, individual and group targets. Previous work has typically considered impression formation for individuals and stereotype development for groups separately, and research on these phenomena has proceeded along rather separate and independent lines. In contrast, the current work proposes that social information processing about individual and group targets exists along a continuum that is governed by expectations of target entitativity. Although differences in social information processing as a function of target type (i.e., individual vs. group) will often be observed, we propose that these defaults will become compliant to perceivers' expectations of target unity and coherence. This proposal accounts for previously observed differences in social perception for individuals and groups but, more important, explains why these differences occur. Further, it makes novel predictions about situations where similarities, as well as differences, should be observed between these two target types. The results of these two experiments provide good support for its major tenets.

The current findings replicate those of McConnell et al. (1994b) but also break new ground by showing that perceivers' expectations about target entitativity lead to either on-line or memory-based judgments of targets. In both experiments, perceivers who were given explicit expectancies regarding target entitativity showed similarities, rather than differences, in judgments of individual and group targets. Only when left to their own defaults did participants show strong differences for individual and group targets.

Thus, these results speak to why differences are observed between individual and group targets and provide a single mechanism to account for them. Rather than postulating that separate processes are responsible for these differences between individuals and groups, we have shown that a common mechanism can account for this divergence when the role of expectations of target entitativity is understood (see Hamilton & Sherman, 1996). Whereas McConnell et al. (1994b) adopted the strategy of manipulating participants' information-processing goals directly, the current research tested the proposed framework, by manipulating expectations concerning target entitativity directly (which, in turn, influenced processing goals). Taken together, the findings of McConnell et al. (1994b) and the present studies dovetail nicely and provide good support for the proposed information-processing framework.

In addition to exploring the similarities and differences in social perception for individuals and groups, the current work

also provides a fuller account of the formation of illusory correlations (i.e., erroneous associations between infrequently encountered social targets and infrequent behaviors). The current data reaffirm the memory-based nature of distinctiveness-based illusory correlations (in keeping with the findings of Hamilton, Dugan, & Trolie, 1985; McConnell et al., 1994b), using several converging indicators of nonintegrative social information processing (i.e., poor recall, recency effects in recall, and positive memory-judgment correlations). In addition, Experiment 2 tested and dismissed an alternative account of illusory correlation formation based on the cognitive load of simultaneously processing information about individuals and their group memberships. Finally, Experiment 2 provided another example where memory-based illusory correlations were observed with individual as well as group targets (see also McConnell et al., 1994b). Although prior work indicated that memory-based illusory correlations occur only with group, but not individual, targets (e.g., Sanbonmatsu et al., 1987; Schaller & Maass, 1989), the current work illustrates that it is the type of information-processing mechanism invoked that is critical for the formation of these evaluative biases, not the type of target encountered.

Although these experiments demonstrate the importance of perceptions of target entitativity in social judgments, additional questions await further research. For example, the current work explored two important ingredients of entitativity: expectations of similarity and behavioral consistency. However, other factors, such as proximity (e.g., people from the same hometown) and interdependence (e.g., members of a family whose behaviors mutually affect each other) should affect perceptions of entitativity as well (Campbell, 1958; Hamilton & Sherman, 1996). In addition, Brewer and Harasty (1996) proposed that groups perceived to be relatively homogeneous in nature will be seen as high in entitativity as well. Additional research is needed to explore whether different bases of perceived entitativity have the same or different implications for social information processing.

Another question of interest concerns the implications of on-line and memory-based judgments. One might ask, does it really matter whether one forms an on-line or memory-based judgment? We believe it does. For example, it has been shown that memory-based judgments, unlike on-line impressions, can lead perceivers to hold unwarranted biases between objectively equivalent targets (i.e., illusory correlations). In addition, these different processes have implications for whether information acquired early or late is emphasized in forming an impression. However, the on-line versus memory-based distinction may have additional implications as well. For instance, because on-line judgments produce well-integrated memory representations (relative to memory-based judgments, which are not highly integrated or well organized), it would seem that on-line judgments would be held with greater confidence and would be much more resistant to change. Although Weisz and Jones (1993) did not test this explicitly, their finding that impressions of individuals are harder to change when one's expectations are based on individual-based (rather than group-based) information is consistent with this prediction. Also, because memory-based judgments do not exist until the time that judgment is required, perceivers forming integrative, on-line impressions may be guided by their impressions, subject to assimilation and contrast effects in interpreting new information, and open to self-fulfill-

ing prophecies (unlike perceivers who render memory-based judgments). Thus, it seems that the information-processing mechanism invoked can have important implications for the nature and stability of the judgments people form about others well beyond the initial impression-formation phase.

In summary, we have presented a framework that explains how people form social judgments and accounts for frequently observed differences in social perception between individuals and groups. Rather than positing different mechanisms, our approach suggests that one common psychological mechanism can account for effects that, heretofore, appeared to be divergent and incompatible. The current research tested a critical component of this framework: Perceptions of target entitativity determine what information-processing mechanism (on-line vs. memory-based) is invoked. Although perceivers generally anticipate greater entitativity (and, thus, form on-line rather than memory-based judgments) for individuals than for groups, there will be times when these default assumptions do not hold (producing similarities, rather than differences, in judgments of individual and group targets). These information-processing differences can have important evaluative consequences as well. In general, this framework was well supported by our findings, and it provides us with a clearer understanding of the cognitive underpinnings of social perception.

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