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SELF-CONSCIOUSNESS AND BIAS IN SOCIAL INTERACTION¹

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Two studies were conducted to investigate whether trait differences in self-consciousness could account for egocentric attribution bias in social interaction. Study 1 examined the prediction that bias would be greater for high self-conscious versus low self-conscious subjects. This prediction was affirmed for the public form of self-consciousness. Study 2 then sought to replicate this effect and examine its generality. The prediction was that self-consciousness effects would be enhanced when social interaction was made salient as the cause of performance (Interaction Important Condition) and would be diminished when social interaction was obscured as the cause of performance (Interaction Unimportant Condition). As predicted, the biasing effect of public self-consciousness was replicated for controls. Also as predicted, public self-consciousness was found to have no effect in the Interaction Unimportant Condition. Contrary to prediction, however the effect of public self-consciousness was reversed in the Interaction Important Condition. Implications of these findings are discussed.

Research indicates that trait differences in self-consciousness may be associated with differences in attributional tendency. Buss and Scheier (1976) had subjects imagine themselves behaving according to a given set of scenarios. They found that subjects who described themselves as privately self-conscious (i.e. chronically concerned about, and attentive to, personal aspects of self such as beliefs, values, attitudes or moods) made more internal attributions for scenario outcomes than subjects who did not. Relatedly, Fenigstein (1979) found that subjects who described themselves as publically self-conscious (i.e. chronically concerned about, and attentive to, social aspects of self such as public appearances, mannerisms and behaviors) claimed more personal responsibility for the way they were treated by a group of others. This effect obtained even when subjects were treated poorly.

To explain these findings, it has been proposed that self-consciousness involves a set toward self-relevant information and thus a tendency to see the self as causal (Carver & Scheier, 1980; Wicklund, 1975). This explanation can be seen as

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consistent with the more general proposition that causality for an event is likely to be attributed to entities that are attentionally salient (Pryor & Kriss, 1977; Storms, 1973; Taylor & Fiske, 1975).

The purpose of this research was to extend the research on trait self-consciousness and attribution to examine its implications for social interaction. In particular, the possibility was examined that differences on this trait might account for the observed tendency of individuals to attribute greater success to their own contributions to the outcomes of social interactions.

The tendency of individuals to make biased attributions about the outcomes of social interactions has been documented by Ross and Sicoly (1979). Across a diverse series of laboratory and field studies, these authors found a tendency for subjects to give themselves more credit for group outcomes (both positive and negative) than was given them by others. Evidence was found also for a concomitant bias in memory for self versus other contributions to performance, thus suggesting a link between memory and attribution. More recently, Burger and Rodman (1983) reported a reversal of this 'egocentric' bias when subjects working on a two-person puzzle task were asked to make attributions immediately following task interaction. However, when subjects were asked to make attributions two days later, the egocentric bias was again observed. In both instances, similar biases in memory were reported.

Although Ross and Sicoly (1979) suggest that the egocentric attribution bias may be pervasive in social life, they note also that the strength of this bias is likely to be moderated by characteristics of both perceiver and setting. Extending this qualification, we propose that one such perceiver characteristic is self-consciousness. Given the tendency of highly self-conscious persons to make more self attributions, it was reasoned that such a tendency in social interaction would result in greater attributions to self and relatively lower attributions to others—in other words, egocentric attribution. Consequently, we predicted that the magnitude of the egocentric attribution bias in social interaction would vary as a function of trait levels of self-consciousness.

Preliminary evidence for this prediction can be found in recent studies which report biasing effects for situationally induced forms of self-consciousness. In three conceptually similar experiments (Burger & Rodman, 1983, experiment 3; Sandelands & Calder, 1984, experiments 1 and 2), treatment subjects were engaged in an interactive task after being made self-conscious by the prospect of evaluation by others. In comparison to controls, treatment subjects claimed relatively more responsibility for positive group outcomes and remembered relatively more of their own contributions to performance. While these experiments employed powerful situational cues to evoke a highly specific and decidedly temporary form of self-awareness (see Stephenson & Wicklund, 1983), they nevertheless suggest the possibility that more enduring dispositional forms of self-consciousness might produce similar effects.

STUDY 1

The principal objective of study 1 was to investigate the relationship between trait level of self-consciousness and incidence of egocentric attribution in social interaction. The prediction was that high self-conscious subjects would be more egocentric in their attributions than low self-conscious subjects.

A secondary objective of study 1 was to investigate possible mechanisms for the

predicted effect. Ross and Sicoly (1979) hypothesized that attributions of responsibility are based on memory for instances of each person's contributions to the interaction. Egocentric attribution bias, they argued, results from a tendency to better remember one's own contributions. Just such a tendency could occur as a result of self-consciousness. Fenigstein (1979) proposed that self-consciousness involves greater attention to self-relevant information (see also Carver & Scheier, 1980). Hull & Levy (1979), on the other hand, proposed that self-consciousness involves the use of memory structures which encode information in self-relevant ways. In either case, one effect of self-consciousness should be to make a person's own contributions to social interaction more available in memory.

A second hypothesis, also considered by Ross and Sicoly, is that responsibility attributions may be biased by a desire to see oneself as causal or efficacious in social interactions. This desire may or may not be associated with memory biases. Insofar as self-consciousness invites or enhances such a motivational set, a tendency toward egocentric attribution would be predicted (c.f. Stephenson & Wicklund, 1983). Such a tendency would be consistent with research which suggests that self-conscious subjects tend to make self-serving attributions (cf. Bradley 1978).

METHOD

PROCEDURE

Subjects were 24 students (12 male and 12 female) who participated in the study as part of a course requirement. They participated in the experiment in pairs. Of the 12 dyads which resulted, 4 were male-male, 4 were female-female and 4 were male-female. One subject was dropped from the sample because of incomplete data.

Upon arriving for the study, subject pairs were seated at a small table directly facing one another. Task instructions were given by videotape for standardization. The task was introduced as follows:

The study you are about to participate in is one in a series of studies designed to illuminate some of the dynamics of a new consumer research technique. This technique involves two people bouncing ideas off one another. In this sense it is not unlike the technique of "brainstorming" or "greenlighting." Its purpose is to generate new ideas for marketing familiar consumer products.

The task was then explained at some length. In order to ensure that the subjects fully understood what they were required to do, the task procedure was illustrated on the videotape.

The task involved making word associations in response to familiar consumer products. Each subject was given a standard set of 10 consumer product names on a set of index cards. Among these were names of familiar household products (e.g. Campbell's Soup, Prell Shampoo, Dial Soap, Brut Colonge). To perform the task, one subject (S1) would read aloud one of the stimulus names and his/her partner (S2) would respond to that name with a word of his/her own. S1 would then respond to S2's word with another word, and so the process would continue until both S1 and S2 had responded twice after the stimulus product name. This completed a set of associations and it became S2's turn to read aloud the next of

the product names, thus starting the next sequence of word associations. In this way, a total of 20 product names were alternately read by the subjects and a total of 80 word associations (4 per product name) were created. Subjects were instructed to respond as quickly as they could to each others words and not deliberate on any word or attempt to retract any word once said. The associations were tape recorded for analysis.

This task was chosen for three reasons. First, the task is interactive and requires participants to make the same number of contributions to the group's output. Second, responsibility for performance is inherently ambiguous. Not only is performance itself intrinsically vague, but it cannot always be established whether responsibility for particular performances (i.e. word associations) lies with the person who gave the performance or with the person to whom that performance was a response. Finally, by restricting task behavior to one word responses, the task permits a natural measure of memory for own versus other task behaviors. This last property is of special significance because it permits investigation of memory processes which might underly attribution effects (e.g. availability, encoding) (see Ross & Sicoly, 1979; Sandelands & Calder, 1984).

SELF-CONSCIOUSNESS

Trait levels of self-consciousness were identified using the Self-Consciousness Scale (SCS) developed by Fenigstein, Scheier and Buss (1975). This scale consists of three subscales: Private Self-Consciousness, Public Self-Consciousness and Social Anxiety. As conceptualized by Fenigstein et al. (1975) the private and public subscales refer to different forms of self-consciousness, while the social anxiety subscale refers to behavioral consequences of self-consciousness. Because the focus of this study was on self-consciousness and not its behavioral manifestations, data were collected for the two self-consciousness scales only. Subjects were identified as either high or low in private and public self-consciousness by dividing the distributions of scores on both subscales at the median.

DEPENDENT VARIABLES

Upon completing the task, subjects were administered a short questionnaire. Embedded in the questionnaire were two items which measured subjects' attributions to self and the other person. Subjects were asked to allocate responsibility for their own performance and for the performance of their partner by dividing 100 percentage points between categories marked "self" "partner" and "other" In this way subjects were required to make six judgments — three about their own behavior and three about their partner's behavior. The total amount of responsibility attributed to self in the task was computed by summing "self" attributions across judgments for own and partner's performance. The total amount of responsibility attributed to partner was similarly computed by summing "partner" attributions across these judgments.

The post-test questionnaire also contained items designed to measure subjects impressions of both their own performance and the performance of their partner. On 5 point Likert type items, subjects were asked to agree or disagree with the following statements: My (My partner's) word associations were creative, I (My partner) performed well in the marketing research exercise, My (My partner's) word associations were very original, My (My partner's) word associations suggest novel ideas to marketing practitioners. Scores on these items were then summed to form overall measures for own and partner's performance.

Finally, subject's memory for the interaction was assessed using a free-recall procedure. Subjects were given a stack of index cards and asked to write down as many of the words given as associations as they could remember, using one word for each word recalled. This procedure insured that subjects employed individual words as the unit of recall and provided a record of the order in which words were remembered. The identity of recalled words (own versus partner's) was determined by means of the tape recording of the session.

RESULTS

Preliminary analyses revealed that the measures of Private and Public Self-Consciousness were of acceptable reliability ($\alpha = .74$ and $.85$ respectively).² Moreover, for both measures a median split (median Private = 19.5; median Public = 18.5) produced substantial differences in self-consciousness. Private (\bar{X} s, 22.00 vs. 13.73; $F(1, 21) = 49.04$, $p < .001$), Public (\bar{X} s, 22.17 vs. 16.00, $F(1, 21) = 31.90$, $p < .001$).

Table 1 presents the means and standard deviations for attributions to self and partner for subject groups that were High and Low in Private and Public Self-Consciousness. An egocentric attribution bias is indicated when attributions to self are significantly greater than attributions to partner. Consistent with previous research, a within-subjects analysis of variance (ANOVA) revealed that such a bias characterized this sample, $F(1, 22) = 4.20$, $p < .05$. In general, these subjects gave themselves more credit for performance than they gave their partner. To examine the hypothesis that the magnitude of egocentric bias varies as a function of level of trait self-consciousness, the interaction between the within subjects factor (Attribution Type) and the between subjects factor of Self Consciousness was tested in a 2 x 2 mixed design analysis of variance (ANOVA). This interaction approached statistical significance for groups identified on the basis of Public

TABLE 1: ATTRIBUTIONS TO SELF AND PARTNER FOR SELF-CONSCIOUSNESS GROUPS

	<i>Type of Self-Consciousness</i>			
	<i>Private</i>		<i>Public</i>	
	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>
<i>Attribution</i>				
<i>Self</i>				
<i>Mean</i>	93.83	99.09	98.00	94.55
<i>(s.d.)</i>	(16.41)	(11.79)	(17.37)	(10.60)
<i>Partner</i>				
<i>mean</i>	86.75	92.64	85.00	94.55
<i>(s.d.)</i>	(15.92)	(14.85)	(17.95)	(10.60)
<i>N</i>	12	11	12	11

² The mean score on the Private Subscale of the Self-Consciousness Scale is based on 9 items instead of the usual 10. A typographical error in the instrument used required that one item be deleted from the scale.

Self-Consciousness, $F(1, 21) = 3.85$; $p < .06$, but not for groups identified on the basis of Private Self-Consciousness, $F(1, 21) = .01$, n.s. Comparisons of self and partner attributions within public self-consciousness groups (High PSC, Low PSC) revealed a bias for High PSC subjects, $t(11) = 2.09$, $p < .03$; one-tailed, but not for Low PSC subjects, $t(10) = .00$, n.s.. In this sample, only public self-conscious subjects made egocentric attributions.

Further analyses were conducted to explore the relationship between public self-consciousness and egocentric attribution. Previous research (Buss & Scheier, 1976; Fenigstein, 1979) suggests that trait self-consciousness causes attribution bias by strengthening attributions to self (i.e. the self-attribution bias). Theoretically, however, bias could also result from a diminished attribution to partner, or some combination of the two. To investigate these effects, zero-order correlations were computed between public self-consciousness scores and attributions to both self and partner. Contrary to expectation, the predicted positive correlation between public self-consciousness and attributions to self was not significant, $r(23) = .09$, n.s.. Instead, a marginally significant negative correlation was found between public self-consciousness and attributions to partner, $r(23) = -.32$, $p < .07$. Interestingly, this pattern of results obtained even though attributions to self and attributions to partner were themselves positively correlated, $r(23) = .35$, $p < .05$. Consistent with the finding of group differences in egocentric bias, a positive and significant correlation was found between public self-consciousness and the difference between attribution to self and attribution to partner, $r(23) = .36$, $p < .05$. In general then, this pattern of correlations indicates that egocentric attribution biases were most strongly determined by the effects of public self-consciousness on attributions to others.

SUBSIDIARY ANALYSES

Finally, two analyses were undertaken to investigate possible mechanisms for the observed ego-centric attribution bias. First, the possibility that this bias resulted from differential memory for own versus partner's contributions to performance was examined by comparing levels of word recall. Memory for own words was identical to memory for partner's words (Own words, $\bar{x} = 20.58$, s.d. 10.45; Partner's words, $\bar{x} = 20.58$, s.d. 5.11; $t(11) = .00$, n.s.). Moreover, there was no correlation between memory for own word associations and attributions to self, $r(23) = -.17$, n.s., or between memory for partner's word associations and attributions to partner, $r(23) = -.18$, n.s.

Second, the possibility that this bias resulted from self-serving motivation was examined by comparing subjects' evaluations of own and partner's performance. If a self-serving bias was present, own performance should be rated more highly than partner performance. No difference was found between these evaluations (Own Performance, $\bar{x} = 11.25$, s.d. 1.60; Partner's Performance, $\bar{x} = 12.17$, s.d. 2.41, $t(11) = 1.20$, n.s.).

DISCUSSION

The results of this study suggest that trait level of public self-consciousness (PSC) is related to the magnitude of egocentric attribution bias in social interaction. High PSCs registered a clear bias toward themselves when attributing responsibility for performance while low PSCs evidenced no discernible bias. Private self-consciousness, on the other hand, was found to have no effects on attribution in this study.

Although different effects were not predicted for public and private forms of self-consciousness, these effects can be given a plausible, if *post hoc*, interpretation. Public self-consciousness refers to set toward information about, and relevant to, social aspects of the self (Fenigstein, Scheier & Buss, 1975). Given such a set, High PSCs, as compared to Low PSCs, should be more attuned to the social consequence of their own behavior and more likely to see their own behavior as causing social outcomes. In contrast, private self-consciousness refers to a dispositional set toward what are essentially asocial or non-social aspects of self (e.g. internal states, moods, beliefs). Insofar as these aspects of self are unrelated to social outcomes, private self-consciousness should bear little relationship to these attributions.

The pattern of means indicates that the observed ego-centric attribution bias was owing primarily to differences in attributions to partner, although some differences were observed in attributions to self as well. This contrasts with previous studies that suggest enhancement effects of self-consciousness on self-attributions (Buss & Scheier, 1976; Fenigstein, 1979). One position explanation for this difference may be the procedure used to measure attributions. In the present study attributions were computed by summing across subjects' attributions for own and for partner's performance. This contrasts with the procedure used by Buss and Scheier (1976) and Fenigstein (1979) wherein subjects were required to combine these attributions in a single overall assessment of responsibility for performance. Possibly, some part of the self-attribution bias results from this implicit process of integration. One would hope that these measurement procedures would produce estimates of subjects' attributions which are not too different from one another. There is, however, the more nettlesome possibility that these procedures furnish information about somewhat different kinds of attribution.

Finally, no support was found for either the memorial or motivational explanations for egocentric attribution bias. The appearance of no recall effects is noteworthy given the fact that such effects have been reported previously in connection with situationally induced self-awareness (e.g. Burger & Rodman, 1983; Ross & Sicoly, 1979; Sandelands & Calder, 1984). Less noteworthy, perhaps, is the appearance of no evaluation differences. Concerns for modesty may have led subjects to be humble when evaluating themselves and generous when evaluating others. Such norms may not have operated in attributions of responsibility.

STUDY 2

While the finding that public self-consciousness is related to attribution bias in social interaction is of theoretical interest, its practical importance depends on its generality. As Michel, Ebbesen and Zeiss (1973) have pointed out, the role traits play in determining social behavior depends on the context in which that behavior occurs. Traits are most likely to influence behavior when the situation calls for trait-related behavior. In study 1, trait self-consciousness influenced attribution in a situation that clearly called for an attribution to be made (if for no other reason than subjects were asked to furnish one in the post-test questionnaire).

By the same token, trait effects are likely to be limited when the situation furnishes powerful cues about appropriate behavior. Under such circumstances,

behavior may even be incompatible with dispositional tendency. In the case of attributions about social interaction, there are probably many situations where these attributions are manifestly determined by the situation. In work settings, for example, the contributions individuals make to a social product are often prescribed in advance. They may even be codified in an explicit and socially sanctioned division of labor and hierarchy of authority and responsibility. Alternatively, on many sports teams an explicit ethic can be observed which says, in effect, that egocentric attributions about responsibility for team performance are illegitimate. In cases such as these, public self-consciousness may be expected to have little or no effect on attribution. The purpose of Study 2 was to investigate the generality of the relationship between public self-consciousness and egocentric attribution in social interaction.

It was predicted that the effects of public self-consciousness on attributions to self and partner would vary according to the importance attached to the social interaction as a determinant of performance. Based on the discussion above, it was reasoned that public self-consciousness should bias attribution only to the extent that the public and social aspects of self are seen as relevant to the determination of interaction outcomes. Where these aspects are seen as irrelevant, public self-consciousness should have no effect on attribution.

To test this hypothesis, subjects were engaged in the same task as in Study 1 but this time under different conditions of instruction. In one condition, subjects were given instructions designed to emphasize the importance of their interaction in determining performance (Interaction Important Condition). In a second condition, subjects were given instructions designed to obscure the importance of their interaction in determining performance (Interaction Unimportant Condition). Finally, a third, no-instruction Control Condition was included for comparison purposes and to serve as a check on the findings of Study 1.

METHOD

PROCEDURE

Subjects were 76 (37 male and 39 female) student volunteers from a graduate program in business administration. As in Study 1, subjects participated in the experiment in pairs. Of the 38 dyads which resulted, 9 were male-male, 11 were female-female, and 18 were male-female. Two subjects were dropped from the final sample because of poor or incomplete data. As an inducement to participate in the experiment, all subjects were offered a chance to win \$200 dollars in a lottery held at the conclusion of the study.

Subjects were engaged in the same word association task described in Study 1. Upon arriving for the experiment, subject pairs were assigned randomly to task condition (after blocking on sex and type of dyad). Task instructions were again given by videotape for standardization.

All subjects were told that the study was an investigation of a new marketing research technique. The task was then explained as in Study 1 and subjects were again made to watch a simulated sequence of trials on videotape.

INDEPENDENT VARIABLES

The main independent variable was the expressed importance of subjects' social interaction in determining performance. In addition to receiving the basic task instructions, subjects in the Interaction Important Condition were given the

following instructions designed to highlight the significance of their interaction in determining performance:

This marketing research technique is based on the concept of 'brainstorming' or 'greenlighting'. Together, your role in this technique is to generate creative word associations by building on each other's words. Try to be as creative as you can in making associations between words. The success of this technique rests on how well the two of you are able to work together in stimulating and playing off one another. The quality of your interaction is very important.

In order to obscure the role of social interaction in determining performance, subjects in the Interaction Unimportant Condition were given the following additional instructions:

The purpose of this research technique is to evaluate the personalities of consumers. It is based on the technique of free association used by psychologists. There are two people in this study. Your role is to respond to your partner's words with whatever words come into mind. Your associations will tell us something about your personality. Of course, the sensitivity of this technique for assessing your personality will depend on your openness.

Subjects in the Control Condition did not receive any additional instructions and were thus free to view their performance in any way they chose.

As in Study 1, trait levels of self-consciousness were assessed using the Self-Consciousness Scale developed by Fenigstein, Scheier and Buss (1975). Subjects were identified as either high or low in public and private self-consciousness by dividing the distributions of scores on both subscales at the median.

DEPENDENT VARIABLES

Attributions and recall were measured exactly as in Study 1. Evaluations of own and partner's performance were assessed by asking subjects to rate each person's word associations on 12 semantic differential items. Sample items were consistent-inconsistent, interesting-boring, complex-simple, and creative-non-creative.

RESULTS

The basic prediction was that the strength of the relationship between public self-consciousness (PSC) and egocentric attribution would depend on whether or not social interaction was defined as being important in determining performance. To test this prediction, analysis centered on the biasing effects of Public Self-Consciousness (High PSC versus Low PSC) within treatment conditions (Interaction Important versus Interaction Unimportant).³ As in Study 1, evidence for egocentric attribution was taken when attributions to self were greater than attributions to partner. High and Low PSC groups were identified by a median split (median = 18.3) of subjects scores on the measure of Public Self-

³ As in Study 1, private self-consciousness was found to have no impact on attribution bias. No evidence of bias was found either among low private self-conscious subject groups (all t s < 1.51, n.s., average $t = .88$) or among high private self-conscious subject groups (all t s < -1.10, n.s., average $t = .72$).

Consciousness (Chronbach's alpha = .81). These groups differed substantially in mean levels of Public Self-Consciousness (\bar{X} s 22.12 vs. 14.61, $F(1, 52) = 85.30$, $p < .001$).

Table 2 presents means and standard deviations for attributions to self and partner for each subject group. The pattern of means reveals partial support for the theoretical prediction. As expected, no discernible attribution bias was found either for High or Low PSC subjects when social interaction was described as unimportant to the task, t 's < 1.0 , n.s.. Indeed, in both cases, attributions to self were nominally lower than attributions to partner. Also as expected, an ego-centric attribution bias was found within the Interaction Important Condition. However, contrary to expectation, this bias was found for Low PSC subjects, $t(16) = 1.78$; $p < .05$, one-tailed), and not for High PSC subjects, $t(10) = -1.15$, n.s. In contrast to Study 1, higher levels of public self-consciousness were associated with larger rather than smaller attributions to partner, $r(28) = .34$, $p < .05$. As before, although positive, the correlation between self-consciousness and attributions to self was not significant, $r(28) = .14$, n.s. For control subjects, the prediction was that the biasing effects of public self-consciousness (PSC) would replicate those found in Study 1. As indicated in Table 2, a comparison of High versus Low PSC groups (median = 19, \bar{X} s 22.00 vs. 15.00, $F(1, 18) = 27.22$, $p < .001$) revealed essentially the same pattern of attributions to self and partner observed in Study 1. As before, for Low PSCs, attributions to self and other did not differ, $t(19) = .15$, n.s., while for High PSCs, attributions to self tended to be larger than attributions to partner, although in this case the difference did not reach statistical significance, $t(9) = 1.22$, $p < .15$, one-tailed. The correlation between public self-consciousness and attribution to self was again positive but non-significant, $r(20) = .13$, n.s. The correlation with attribution to partner was again negative and significant, $r(20) = -.44$, $p < .05$. And again, the correlation with the difference between self and partner attribution (an alternative measure of bias) was positive and significant, $r(20) = .40$, $p < .05$.

TABLE 2: ATTRIBUTIONS TO SELF AND PARTNER FOR PUBLIC SELF-CONSCIOUSNESS GROUPS BY TREATMENT CONDITION (HIGH PSC VERSUS LOW PSC)

	Task Condition					
	Interaction Impt.		Interaction Unimpt.		Control	
	HPSC	LPSC	HPSC	LPSC	HPSC	LPSC
<i>Attribution</i>						
<i>Self</i>						
mean	97.73	94.71	93.67	93.64	95.50	97.00
(s.d.)	(11.70)	(19.64)	(9.72)	(10.51)	(19.50)	(5.37)
<i>Partner</i>						
mean	98.64	84.18	96.33	96.36	85.50	98.50
(s.d.)	(11.85)	(16.46)	(9.35)	(11.85)	(15.36)	(8.18)
N	11	17	15	11	10	10

SUBSIDIARY ANALYSES

As in Study 1, additional analyses were conducted to investigate possible memorial and motivational correlates of observed attribution biases. For Low PSC subjects in the Interaction Important Condition, no differences were found either in memory for own versus partner's word associations, $t(16) = -.09$, n.s., or in evaluations of own and partner's performance, $t(16) = -1.42$, n.s. For High PSC subjects in this condition, a strong evaluation bias in favor of partner's performance was found, $t(10) = -3.41$, $p < .01$. For High PSC subjects in the Control Condition, a different pattern of memory and motivation was observed. These subjects remembered more of their own words from the interaction, $t(9) = 3.23$, $p < .005$, one-tailed, and evaluated their own performance more favorably, $t(9) = 2.63$, $p < .02$, one-tailed. For Low PSC subjects in this condition, no differences were found either in memory, $t(9) = 1.33$, n.s., or in evaluations, $t(9) = 1.46$, n.s.

DISCUSSION

Study 2 examined the prediction that the relationship between Public Self-Consciousness and egocentric attribution would be enhanced when social interaction was identified as the cause of performance and diminished when social interaction was denied as the cause of performance. This prediction received partial support. As expected, no relationship was observed in the Interaction Unimportant Condition. Contrary to expectation, the relationship was reversed in the Interaction Important Condition. Egocentric attribution bias was found for Low PSCs but not for High PSCs. Finally, consistent with Study 1, evidence of a positive relationship between public self-consciousness and egocentric bias was found in the no treatment Control Condition.

These results clearly indicate the importance of contextual factors in determining the relationship between public self-consciousness and egocentric attribution. In this study, the context of a social interaction was found not only to modulate the strength of this relationship (strong versus weak) but also to determine its functional form (positive versus negative). Thus, there is reason to be circumspect when generalizing about the effects of public self-consciousness on attributions about social interactions.

Perhaps, the most intriguing finding in this study is that for the Interaction Important Condition. Higher trait-levels of PSC were associated with lower, rather than higher, levels of egocentric attribution bias. In contrast to the Control Condition and to Study 1, the principal effect of public self-consciousness was to increase (rather than decrease) attributions to partner.

One possible explanation for this finding is that subjects in the Interaction Important Condition perceived different aspects of the interaction as self-relevant. Whereas subjects in both the Control Condition and in Study 1 may have identified only their own behavior in the interaction as self-relevant, these subjects may have identified both their own behavior and that of their partner as self-relevant. This possibility seems reasonable considering that these subjects were told explicitly that their performance was dependent on how both persons behaved in the interaction. In this case, higher levels of public self-consciousness would be associated with higher levels of attribution both to self and partner.

Another possible explanation for this findings is that the Interaction Important manipulation may have communicated more than was intended. In particular, it

may also have communicated an imperative to divide responsibility for the interaction equally. By explicitly defining performance as a social product, this manipulation may have carried the implication that egocentric attributions are illegitimate. Given this possibility, the manipulation may have had countervailing effects. On the one hand, it may have encouraged egocentric bias by making salient the effects of subjects' actions on others. On the other, it may have preempted egocentric attribution by denying the legitimacy of bias. Attribution differences between High and Low PSC groups in this condition might thus reflect differences in the sensitivity of these groups to these countervailing effects — i.e. High PSCs may have been more influenced by the more subtle implication that attributions should not be biased in this setting.

Finally, it is interesting to take note of the findings for memory and self-serving motivation. For subjects in the Control Condition, the data suggest that either availability or self-serving motivation could explain the effects of public self-consciousness on attribution. High PSCs (as compared to Low PSCs) were more biased in their memory for the interaction and evaluated performance in a more self-serving way. These findings contrast, however, with the Interaction Important Condition where egocentric attribution among Low PSCs was not accompanied either by memory bias or motivation bias. More strikingly, these findings also contrast with Study 1 where High PSC subjects in the same condition similarly gave no evidence of these biases.

These findings for memory and motivation are nothing if not perplexing. At a theoretical level, they suggest that while these factors may mediate the effects of public self-consciousness on attribution in some cases, they may not in others. Still, the possibility cannot be ruled out that these factors are causally unrelated to attribution in social interaction — i.e. that they are epiphenomenal. The finding in this study of egocentric attribution bias without availability bias or motivation bias supports this interpretation. Similarly, the finding of Burger and Rodman (1983) of availability bias without egocentric attribution bias adds further clout to this interpretation. The results of this study suggest that one important area for future research is to explicate the role these factors play in the origins of egocentric attribution bias.

GENERAL DISCUSSION

This research set out to investigate the hypothesis that trait differences in self-consciousness (public and private) could account for egocentric attribution bias in social interaction. This hypothesis was supported for the public form of self-consciousness. In both Study 1 and Study 2, different attributional tendencies were observed according to whether subjects were high or low in public self-consciousness.

Study 1 examined the prediction that ego-centric attribution bias would be stronger for high-self conscious as compared to low self-conscious subject groups. This prediction was affirmed. Study 2 then examined the generality of this effect. As predicted, these results were largely replicated in the control condition. Also as predicted, public self-consciousness did not affect attribution when individual personalities were identified as the cause of performance (Interaction Unimportant Condition). Contrary to prediction, however, public self-consciousness resulted in lower levels of attribution bias when social interaction was explicitly identified as the cause of performance (Interaction Important Condition). It was concluded

that the effects of self-consciousness on attribution are strongly influenced by characteristics of the context in which social interaction takes place.

More generally, the results of Study 2 suggest that the biasing effects of public self-consciousness (PSC) are more limited and capricious than previously thought. High PSCs made egocentric attributions only in control conditions where the causal basis of performance was not explicitly identified or mandated. The question that arises, then, is how typical are these circumstances in everyday social interactions? On the one hand, there seem to be many encounters where interpretations about the causes of performance are left unpoliced and where people are free to make whatever attributions they wish (e.g. casual conversations, parties, games). On the other hand, one wonders how frequently people actually bother to make attributions about these encounters. Recent research suggests that attributions are made only when there is good reason to make them (cf. Langer, 1978). Moreover, we suspect that it's precisely when attributions matter most that they are most likely to be socially regulated. Nevertheless, there are no doubt occasions when people make attributions and when these attributions are not fully prescribed in advance (either because they cannot be or because social actors are unwilling to do so). On these occasions, public self-consciousness could lead to consequential biases in attribution.

Finally, the results of this research emphasize the need for further research on the attributional consequences of public self-consciousness. Additional research is needed to determine when this trait disposition affects attribution and when it does not. Moreover, further research is needed to better understand the psychological mechanisms that mediate these trait effects. In the present research, memory and motivation were found to be inconsistently related to attribution bias. It remains to more fully explicate underlying processual factors and specify which factors operate and when.

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