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Social Roles, Social Control, and Biases in Social-Perception Processes

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To make accurate social judgments, an individual must both recognize and adequately correct for the self-presentation advantages or disadvantages conferred upon actors by their social roles. Two experiments examined social perceptions formed during an encounter in which one participant composed difficult general knowledge questions and another participant attempted to answer those questions It was found, as predicted, that perceivers fail to make adequate allowance for the biasing effects of these "questioner" and "answerer" roles in judging the participants' general knowledge. Questioners, allowed to display their personal store of esoteric knowledge in composing questions, were consistently rated superior to their partners, who attempted to answer the questions. This bias was stronger for the answerers and the uninvolved observers than for the questioners Some implications of these results for our understanding of the biased perceptions of the powerful and the powerless in society are noted. More general implications for an understanding of the shortcomings of the "intuitive psychologist" are also discussed.

Interpersonal encounters provide an important informational basis for self-evaluation and social judgment. Often, however, our performances in such encounters are shaped and constrained by the social roles we must play. Typically, roles confer unequal control over the style, content, and duration of an encounter; such social control, in turn, generally facilitates displays of knowledge, skill, insight, wit, or sensitivity, while permitting the concealment of deficiencies. Accurate social judgment, accordingly, depends upon the perceiver's ability to make adequate allowance for such role-conferred advantages and disadvantages in self-presentation.

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The thesis of the present paper, and of the research it reports, is a simple one: In drawing inferences about actors, perceivers consistently *fail* to make adequate allowance for the biasing effects of social roles upon performance. The specific empirical demonstration reported here dealt with the particular roles of "questioner" and "answerer" and with the biased perceptions of general knowledge that result from the arbitrary assignment and fulfillment of these roles. Subjects participated in a general knowledge "quiz game," in which one person was assigned the role of questioner and the other the role of answerer, or "contestant." The questioner first composed a set of challenging general knowledge questions and then posed them to the contestant; both participants (and, in a subsequent reenactment, a pair of observers) were then required to rate the questioner's and contestant's general knowledge.

It should be emphasized that the role-conferred advantages and disadvantages in self-presentation of general knowledge in the quiz game were neither subtle nor disguised. Questioners were allowed and encouraged to display their own wealth of general knowledge by asking difficult and esoteric questions,

and their role, of course, guaranteed that they would know the answers to the questions asked during the quiz game. The contestant's role, by contrast, prevented any such selective, self-serving displays and made displays of ignorance virtually inevitable. In a sense, the arbitrary assignment and fulfillment of roles forced participants to deal with nonrepresentative and highly biased samples of the questioners' and contestants' general knowledge.

The encounter between questioner and contestant was designed to capture the essential feature of many real-world encounters: One participant defines the domain and controls the style of the interaction and the other must respond within those limits. The quiz game, however, provides a particularly stringent test of our thesis, because the participants seemingly enjoyed an ideal perspective to overcome the proposed bias: In contrast to many real-world encounters, the random nature of the role assignment was salient and unambiguous; furthermore, both participants were fully aware of the obligations and prerogatives associated with each role.

The primary experimental prediction was that the perceivers of the quiz game—the participants themselves and observers as well —would form relatively positive impressions of the questioners' general knowledge and relatively negative impressions of the contestants' knowledge. This prediction, it should be reemphasized, follows from the expectation that perceivers would consistently underestimate, and/or make inadequate allowance for, the biasing effects of the questioners' and contestants' roles upon their ability to display general knowledge advantageously. It was further anticipated, therefore, that impressions would be biased to the extent (and only to the extent) that the relevant perceivers were forced to rely upon biased samples of "evidence." A detailed analysis of the various perceivers' access to and reliance upon biased or unbiased samples, however, will be deferred until our experimental results have been presented.

Experiment 1: Contestants' and Questioners' Perceptions

In Experiment 1, subjects performed the arbitrarily assigned roles of questioner or contestant in an oral quiz of general knowledge. In the experimental condition, questioners asked questions that they had composed themselves; in a yoked control condition they posed questions formulated by a previous questioner. All of the subjects rated their own general knowledge and that of their partners after the quiz session was completed and then again after taking a written general knowledge quiz prepared by the experimenter.[1]

Method

Subjects and Role Assignment

Eighteen male pairs and 18 female pairs of subjects were recruited from an introductory psychology class at Stanford University for a "quiz game" experiment. Upon their arrival at the laboratory, subjects were met by a same-sex experimenter, who explained that the study dealt with the processes by which "people form impressions about general knowledge." The experimenter then introduced the quiz format and explained that one subject would be given the "job of contestant" and the other the "job of questioner." The random and arbitrary nature of the role assignment was then made obvious to the subjects by having them each choose one of the two cards ("Questioner" or "Contestant") that had been shuffled and placed face down before them

Questioner and Contestant Roles

The questioner and contestant in each session were seated at separate tables in the same room. Each received oral instructions and each heard the instructions given to his or her partner These oral instruc-

[1] Half of the 12 experimental condition pairs of each sex completed *only* these ratings and it was these pairs to whom the 6 control pairs of each sex were yoked (i.e., the questions prepared and posed by these questioners were subsequently used by the control-condition questioners). The remaining half of the experimental group pairs also completed a self-rating of general knowledge *before* the initial quiz session but after assignment of roles. There were no significant differences between questioners and contestants on this premeasure and its introduction produced no apparent impact upon subsequent dependent measures.

tions were supplemented with more detailed written descriptions of their tasks and roles.

Twelve pairs of subjects of each sex participated in the *experimental* condition. In this condition, the questioners were instructed to compose 10 "challenging but not impossible" questions for the contestant. They were cautioned to avoid both easy questions (e g , the number of days in the month of April) and unfair questions (e.g., the name of the questioner's brother) and to draw from any area in which they had interest or expertise ("for example, movies, books, sports, music, literature, psychology, history, science, etc."). The questioner was instructed to complete, in 10 or 15 minutes, 10 questions that could be answered in a word or two and to ask the experimenter for help if he or she had any problems To aid the questioner in this task the experimenter offered a few sample questions (e.g., "What is the capital of New Mexico?") and suggested some possible areas or question formats (e.g., "You can ask about something you read in the news, or ask about the geography of a particular state, or ask what is the largest . . . or the highest . . . etc ").

During the period in which the questioner composed difficult quiz items, the contestant also engaged in a question-preparation task. However, the contestant's task involved composing easy questions that would be irrevelant to subsequent advantages and disadvantages in self-presentation [2] The experimenter's instructions to the contestant emphasized the difference in tasks:

> Your job, as "contestant," will be to answer the questions that the questioner is now composing. Right now, however, we would like you to "warm up" for the quiz game by composing some questions of your own. These questions won't be used during this experiment; they're just for you to get into the spirit of our study. The questioner's instructions tell him or her to compose 10 challenging questions of the type that are used in TV game shows However, we want you to compose 10 questions that are relatively *easy*, questions that could be answered by 90% of high school freshmen.

Six pairs of subjects of each sex participated in the *control* condition. In this condition, both questioners and contestants were informed that for the quiz session, the questioner would ask questions prepared beforehand by another individual. Here, both the participants spent 15 minutes before the quiz preparing "easy general knowledge questions"; that is, their preparation task was identical to that of the contestants (but not that of the questioners) in the experimental condition. Again, both participants were fully aware of the details of each other's preparation and quiz game tasks.

The preparation period was followed by the quiz game: As described earlier, questioners in the experimental condition posed their own questions to the contestants; in the control condition, each questioner posed items prepared by a same-sex questioner from the previous experimental condition (see Footnote 1) It should be emphasized that the contestants were always aware of whether or not the questions were prepared by their own questioner or by someone else. During the quiz the questioner faced the contestant and waited about 30 seconds for the contestant's response to each question, acknowledging correct responses and supplying them when the contestant failed to answer or answered incorrectly. To minimize extraneous self-presentation evidence concerning general knowledge, all participants were instructed to say nothing beyond the questioning and answering demanded by their assigned roles.

Throughout the quiz session, the experimenter recorded all responses given by the contestant, and made certain that the two participants properly fulfilled their roles At the conclusion of the session, the experimenter noted aloud the number of correct responses made by the contestant.

Dependent Measures and Concluding Procedures

Immediately following the quiz game, the participants rated themselves and their partners on several

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[2] The contestant's task, prior to the quiz game, was designed to resemble superficially the task of the questioner without sacrificing any part of the latter's self-presentation advantage. Nevertheless, it is important to recognize that the present independent-variable manipulation was a compound one, involving a manipulation of the preliminary question-preparation task in addition to that of the contestant-versus-questioner role in the quiz session. It is impossible, therefore, to determine from the present results alone what part, if any, the difference in preparation tasks might have played in producing the experimental effects to be reported. It is worth noting, however, that any procedure requiring contestants to prepare *difficult* questions would have introduced other confounding factors and problems of interpretation. First, the contestants might have felt slighted or frustrated at the lack of opportunity to pose their questions to their coparticipant. More important, such a task might have forced the contestants to recognize their own capacity to pose extremely esoteric and difficult questions. This recognition, in turn, could have attenuated both the questioner's role advantage and the relevant experimental effect. (The encouragement of this insight through such role playing, it should be emphasized, is hardly a typical feature of the contestant role or of other disadvantaged roles in everyday encounters.) Obviously a factorial design, one comparing the effects of "no question preparation task," "easy question preparation," and "difficult question preparation," would be required to isolate any possible influence of the factors described above.

100-point Likert scales, anchored at "much better than average" and "much worse than average," with midpoints and two additional scale points appropriately labeled. The two most relevant measures required participants to rate themselves and their partners on general knowledge "compared to the average Stanford student"; these were, respectively, the first and seventh items on the questionnaire. Other items provided various manipulation checks and less direct or less relevant estimates of general knowledge.[3]

After completion of this initial set of general knowledge ratings, the experimenter administered to all participants a written general knowledge quiz consisting of 15 moderately difficult items selected from "Jeopardy," a popular general knowledge game (Milton-Bradley, 8th ed.). Typical items on this quiz asked participants to identify "the great lake closest to the Gulf of St. Lawrence" or "the radio show on which the only character who aged was the reporter Jimmy Olsen." This quiz served two purposes: First, it provided a potential "objective" assessment of the subjects' general knowledge that could have been used as a covariate in testing the statistical significance of differences in subjective ratings. (The differences that emerged, however, were sufficiently clear to obviate the need for such covariate analysis.) Second, it gave both contestants and questioners the opportunity to reassess their own general knowledge in light of their performance on items prepared by an unknown outsider. Upon completion of this written quiz, therefore, subjects were given a second questionnaire identical (except for the addition of a few items specifically relevant to the written quiz) to the one they had completed earlier. They were told, "Feel free to revise your ratings or not revise them as you see fit." It should be noted that subjects, on completing these ratings, were aware of their own performances on the written quiz, but unaware of the performances of their partners.

The experimental session concluded with a detailed account by the experimenter of research hypotheses and postulated biases, along with a request that subjects not discuss the study's procedures and purposes with potential subjects.

Results

Contestants' Performances

The quiz sessions of Experiment 1 were designed to confer a self-presentation advantage upon questioners relative to contestants. Thus it was intended and anticipated that contestants would be unable to answer most of the questions posed by the questioners. This precondition for testing our primary hypothesis was reasonably well met; overall, contestants correctly answered a mean of only 4.0 out of 10 questions posed by questioners. This low performance rate was consistent with the level of difficulty of many of the questions asked (e.g., "What do the initials W. H. in W. H. Auden's name stand for?" and "What is the longest glacier in the world?"). Further analysis, however, revealed a rather striking and unanticipated sex difference. Male contestants answered a mean of 5.2 questions correctly, while females answered only 2.9, $t(34) = 3.15$, $p < .01$.

This unanticipated difference permits a further test of the study's basic hypothesis. It is apparent that female questioners more fully exercised the prerogative of their role—to ask difficult questions displaying their own esoteric knowledge while revealing deficiencies in the contestants' knowledge.[4] Accordingly, one might expect and predict that female pairs would provide a stronger confirmation of the experimental hypothesis than male pairs.

General Knowledge Ratings

The principal dependent measures were Likert-type ratings of general knowledge completed immediately following the quiz game. The results for experimental and yoked-control subjects in Experiment 1 are reported in Table 1.

Several comparisons reveal the extent to which the main experimental hypothesis was confirmed. In 18 of the 24 experimental-condition pairs, the contestant's self-rating was less positive than the questioner's self-rating, and in only 4 cases was the reverse

[3] These additional items asked subjects to rate their (a) general knowledge relative to other people in general, (b) test-taking ability, (c) memory for isolated facts, (d) ability to formulate general knowledge questions, and (e) ability to answer general knowledge questions made up by others. The data provided by these additional items do not challenge any implications drawn from the results to be discussed, nor do they extend or clarify these results. In the interest of brevity, these items receive no further attention in the present report.

[4] In a follow-up procedure, a new populaion of subjects took written quizzes consisting of questions originally composed by male and female questioners. Analyses revealed that the females' questions were, in fact, more difficult, $F(1, 98) = 11.42$, $p < .01$.

Table 1
Mean Ratings of General Knowledge of Questioners and Contestants on Questionnaire Immediately Following Quiz Game

Condition	Measure		
	Subject's rating of self[a]	Subject's rating of partner[a]	Self–partner difference
Experimental (n = 24)			
Questioner	53.5	50 6	2.9
Contestant	41.3	66.8	−25.5
Difference	12.2	−16.2	
Control (n = 12)			
Questioner	54.1	52.5	1.6
Contestant	47.0	50.3	−3.3
Difference	7.1	2.2	

[a] All ratings were made on 100-point scales A higher number indicates more general knowledge relative to other Stanford students.

true. The mean difference of 12.2 (see Table 1) was clearly significant, $t(23) = 3.00$, $p < .01$. Similarly, in 18 of 24 cases (with only 5 reverses) the contestants rated their questioners more positively than questioners rated their contestants. Again, the mean difference of 16.2 was statistically significant, $t(23) = 3.93$, $p < .01$.

An examination of the differences between subjects' self-ratings and their ratings of their partners clarify these results (and, in addition, eliminate the error variance introduced by idiosyncratic differences in scale usage). These scores reveal that the contestants rated themselves far inferior to their questioners, $t(23) = 4.66$, $p < .001$, while the questioners rated themselves slightly superior to their contestants, $t < 1$. Furthermore, 20 contestants rated themselves inferior to their questioners, and only a single contestant rated himself superior to his questioner; on the other hand, 12 questioners rated themselves superior and 9 questioners rated themselves inferior to their contestants. These data leave little doubt that it was the contestants and not the questioners whose social perceptions were distorted by the fulfillment of the assigned roles.

Results from the control condition further illustrate the nature and degree of these distortions. The control-group questioners, it will be recalled, were denied the opportunity to display their own stores of esoteric knowledge to their contestants. Instead, they were limited to asking questions prepared by an anonymous previous participant. Control-condition contestants, accordingly, were less prone than experimental-condition contestants to rate themselves negatively in relation to their partners. Control-condition questioners, by contrast, produced ratings of self and partner that were virtually indistinguishable from those of experimental-condition questioners.

Analyses of variance performed on self-ratings, partner ratings, and the crucial self-*minus*-partner differences largely confirm the experimental hypotheses. The interaction between condition and role was statistically significant for ratings of partner, $F(1, 68) = 6.38$, $p < .05$, but not significant for self-ratings, $F(1, 68) < 1$. For the self-minus-partner difference, the relevant Role × Condition interaction was marginally significant, $F(1, 68) = 3.83$, $p < .06$. Furthermore, for contestants alone, the main effect of condition on the self-minus-partner difference measure was clearly significant, $F(1, 34) = 6.05$, $p < .05$,[5] while for questioners alone there was no such effect, $F(1, 34) < 1$. Again it is obvious that the primary distortion in social perception in the experimental condition was the contestants' overly positive assessment of their questioners.

Sex differences. As noted earlier, female questioners asked more difficult questions and received fewer correct answers from their partners than male questioners. Female questioners, in other words, more fully exploited

[5] These analyses of variance treated experimental and control conditions as independent. The reader will recall, however, that the 12 control questioners were yoked to 12 of the 24 experimental questioners (i.e., the control questioners posed questions previously prepared and posed by experimental condition questioners). If only the 12 yoked pairs are considered, the effect of condition on the contestant's rating for self minus partner remains significant: For correlated samples, $t(11) = 2\ 59$, $p < .05$

the opportunity for advantageous self-presentation (or, perhaps, more carefully obeyed the experimenter's instructions) than did male questioners. Comparisons of general knowledge ratings indicate that it was indeed the female pairs who most strikingly confirmed the experimental predictions. Again, it is the contestants' perceptions of their partners relative to themselves that are most revealing: Female contestants in the experimental condition, on the average, rated themselves 36.4 points less positively than their partners, while male contestants rated themselves only 14.6 points less positively. This difference was statistically significant, $t(22) = 2.14$, $p < .05$.

General Knowledge Ratings After Written Quiz

Performance on the written quiz administered by the experimenter served to emphasize that there was absolutely no basis in fact for the subjects' conviction that questioners were superior in general knowledge to contestants. On the 15-item quiz, questioners in the experimental condition scored a mean of 7.75 correct, while contestants scored 7.71 correct, $t < 1$.

A more important issue concerning the experimenter's quiz was its effect upon the participants' previously biased perceptions of their partners' general knowledge relative to their own. An inspection of the relevant self-minus-partner ratings reveals once more the differing experiences, and the resulting differences in perceptions, of male and female pairs. Among female pairs in the experimental condition, the contestants continued to rate themselves far inferior to their questioners, $t(11) = 4.45$, $p < .01$; among male pairs the originally smaller difference disappeared completely, $t(11) < 1$.

Summary of Results

It is clear that contestants in the quiz games failed in their interpersonal assessments to make adequate allowance for the self-presentation advantage enjoyed by their questioners. Thus, they strikingly overestimated the general knowledge of the questioners relative to their own knowledge. It happened that female questioners exploited, more fully than male questioners, the opportunity to display their own idiosyncratic knowledge and to reveal gaps in the knowledge of their contestants. Consistent with our underlying hypothesis, it was thus the female contestants who showed the most positive, and hence the most distorted, perceptions of their questioners.

Experiment 2: Observers' Perceptions

A second demonstration experiment exposed observers to close simulations of the interactions that had occurred between questioners and contestants in Experiment 1. Experiment 2 thus permitted comparison of the observers' relatively impersonal and objective assessments with those of the two personally involved actors in Experiment 1. The experimental prediction paralleled that of Experiment 1. It was predicted that observers, like the actors themselves, would make inadequate allowance for role-conferred advantages and disadvantages in personal presentation and, in so doing, would judge the contestants to be inferior in general knowledge to the questioners.

Female pairs had provided a clearer test—and ultimately a stronger confirmation—of the research hypothesis in Experiment 1. Accordingly, it was the female pairs' sessions from Experiment 1 that were selected for simulation in Experiment 2.

Method

Personnel and Procedures

Two female confederates were recruited to simulate the 12 sessions from Experiment 1 involving the female pairs in the experimental group. Each simulation was observed by one male and one female undergraduate and each of the original sessions was simulated twice (thereby allowing the two confederates to alternate questioner and answerer roles). A total of 48 subjects, 24 males and 24 females, were recruited from the introductory psychology class to serve as observers in Experiment 2.

The subjects were led to believe that the simulation was authentic—that they personally just happened to be the ones randomly assigned to the role of observers, that the two confederates just

happened to receive the two participant roles, and that the quiz game was genuine rather than contrived. The assignment of roles was acomplished through a procedure similar, at least from the subjects' viewpoint, to that followed in Experiment 1. That is, all four participants picked a card at random from among those four shuffled and placed face down before them. All of the cards, in fact, read "Observer": The confederates simply claimed that their cards had read "Questioner" and "Contestant" as dictated by the experimental design.

The simulation unfolded just as the experimental sessions had in Experiment 1. Upon oral instructions from the experimenter (heard by the observers), the confederate playing the role of questioner pretended to compose 10 items for the quiz session, while the contestant pretended to prepare a set of easy questions. During this question-preparation period, the observer subjects also composed easy questions in the manner previously described for Experiment 1 contestants. The questioner's quiz questions and the contestant's responses were identical to those that had been recorded in Experiment 1 for the original pair of subjects. As in the original experimental sessions, the participants refrained from extraneous talking and were generally unexpressive. During the quiz session, the subjects watched the participants closely, without speaking, as instructed by the experimenter.

After the quiz simulation, the observers rated the contestant's and questioner's general knowledge. In virtually all respects the experimenter's instructions and descriptions of purpose were unchanged from Experiment 1. The scales used by the observer subjects to rate the participants' general knowledge were identical in format to those employed in the previous study, except that the items referred to "contestant" and "questioner," rather than "self" and "partner."

Results

Observers' impressions of the participants in the quiz game showed the same bias that was evident in the participants' own perceptions. Overall, the questioner is seen as tremendously knowledgeable ($M = 82.08$); the contestant is seen as only slightly less knowledgeable than the average Stanford student ($M = 48.92$), $F(1,44) = 65.9$, $p < .001$.

These results further support and clarify the findings for Experiment 1: In a sense, the observers necessarily shared the perspective of the contestants. Like the contestants, the observers almost certainly found that they were unable to answer the difficult questions posed by the questioners. What the observers, like the contestants, failed to recognize was that the questioners did not possess any superiority in general knowledge—they merely had exploited the opportunity to choose the particular topics and specific items that most favorably displayed their general knowledge.

An analysis of variance reveals that there were no significant differences between the perceptions of male and female observers ($F < 1$). This result also illuminates the findings of Experiment 1. When male observers saw the same encounters as female observers, they were no better able to make adequate allowance for the questioner's role-conferred self-presentation advantage. It seems very likely, therefore, that the sex differences in ratings obtained in Experiment 1 occurred because of differences in the quiz sessions, not differences in the perceptual strategies or capacities of the raters.

General Discussion

Attribution Error and Sampling Bias

The two experiments reported here clearly demonstrate that social perceivers may fail to make adequate allowance for the role-conferred advantage in self-presentation enjoyed by questioners relative to contestants. This failure was demonstrated by contestants and by observers but not by questioners. When the relevant advantage was most fully exploited (i.e., among female pairs in the experimental group), the relevant distortion in interpersonal judgment was maximized. Conversely, when the questioner's role retained its title but lost its self-presentation advantage (i.e., in the control condition), the distortion in judgment disappeared.

The reader may recognize that the phenomenon we have described represents a special case of a more fundamental attribution error. This fundamental error (cf. Ross, 1977) is the tendency to underestimate the role of situational determinants and overestimate the degree to which social actions and outcomes reflect the dispositions of relevant actors. That is, man as an intuitive psychologist is too often a "nativist," a proponent of stable individual differences, and too seldom a Watsonian "behaviorist." He readily infers broad personal dispositions and anticipates more cross-situational consistency in behavior than actually occurs (Mischel, 1968; 1973; 1974).

He jumps to conclusions about others too readily and underestimates the potential impact of relevant environmental forces and constraints.

Beyond anecdotes and appeals to subjective experience, the evidence most frequently cited (e.g., Jones & Nisbett, 1972; Kelley, 1972) for this fundamental bias involves the apparent willingness of observers to draw "correspondent" personal inferences (Jones & Davis, 1965) about actors who have yielded to very obvious situational pressures. For instance, Jones and Harris (1967) found that listeners assumed some correspondence between a communicator's pro-Castro remarks and his private opinions despite their knowledge that the communicator was obeying the experimenter's explicit instructions under "no-choice" conditions. A second line of evidence that observers may ignore or underestimate situational forces has been provided by Bierbrauer (1973). This investigator showed that even after personally participating in a verbatim reenactment of the classic Milgram (1963) demonstration, raters consistently and dramatically underestimated the extent to which Milgram's subjects would administer dangerous levels of electric shock in accord with the situational forces compelling "obedience." In so doing, Bierbrauer's subjects erroneously assumed that a particular individual's obedience in the Milgram paradigm reflected distinguishing personal dispositions rather than the potency of situational pressures and constraints.

Social roles thus may be regarded as a special case of situational forces that bias performance and the inferences about actors that are made on the basis of such performances. Accordingly, the present demonstrations may be regarded as a special case, and a particularly powerful demonstration, of the susceptibility of subjects to the fundamental attribution error noted by theorists since Heider (1958).

A conception of the social perceiver as an "intuitive psychologist" who must draw inferences from the social data he samples, stores, retrieves, and analyzes (cf. Ross, 1977) suggests another more general interpretation of the demonstration experiments reported in the present paper. Ratings of general knowledge were made on the basis of data furnished during the quiz game. In fact, it is apparent that distorted judgments about the participants in the game were based on highly unrepresentative data samples, systematically *biased* to favor the questioner. Consider the quiz items prepared by the questioners. These surely were the most biased samples imaginable of their general knowledge; indeed, an item was presented to a contestant (and to observers) only if the questioner both knew the answer *and* anticipated that the contestant would be unlikely to know it. The present findings suggest that this tremendously biased sample of the questioner's knowledge was nevertheless treated by the contestant and by subsequent observers as reasonably representative. These raters apparently failed to make adequate allowance for the fact that, had the role assignments been reversed, the contestants could have just as easily prepared questions that would have stumped their questioners and revealed their own knowledge to best advantage. In fact, a brief review of the pattern of obtained results suggests that distortions in perceptions and judgments occurred precisely to the extent that the perceiver was forced to rely upon an unrepresentative but highly available (cf. Tversky & Kahneman, 1973) data sample.

Judgments About the Questioner

The contestants and observers alike had access to only one sample of the questioner's general knowledge, that flattering sample of 10 difficult questions prepared for the quiz game. The contestants and observers knew, of course, that the relevant sample was not random; indeed, they knew precisely how it was drawn and why it was biased. Nevertheless, they consistently rated the questioners as highly knowledgeable.

The questioners, by contrast, were not forced to rely uniquely upon the 10-item sample available to contestants and observers. The questioners had a lifetime of experience and social comparison to draw upon in assessing their own knowledge; moreover, they were aware of the vast areas of ignorance

they had passed over in searching for optimal topics and specific items. It is consistent with our analysis, therefore, that questioners did not rate themselves as superior to the average of their peers.

Judgments About the Contestant

The sample of the contestant's knowledge provided by the quiz game was not really biased or unrepresentative. It was a reasonably random sample of his or her ability to answer relatively difficult and obscure general knowledge questions. As our analysis would dictate, the questioners and observers rated the contestant, overall, as "average" in general knowledge. It is interesting to note that the contestant did downgrade his or her own knowledge somewhat as a result of the quiz game experience. This probably resulted not from any distortion in self-perception but rather from the basis of comparison (i.e., the "average Stanford undergraduate") used in the rating. The contestant might have been led to overestimate the knowledge of the population from whom his partner was sampled on the basis of this one vivid and concrete experience (cf. Nisbett & Borgida, 1975).

It is also interesting to contrast the observer's perspective with that of the contestant. Each observer knew that *two* individuals (i.e., the observer and the contestant alike) were baffled by the questioner's quiz items. Contestants, of course, enjoyed no such reassuring "consensus" information (Kelley, 1967). Thus the observers were confident that the contestants, like themselves, were simply average, but that the questioners were vastly superior; the contestants, by contrast, seemed to entertain the hypothesis that they themselves were somewhat inferior to the "average Stanford undergraduate," and the questioners were somewhat superior.

In summary, it appears that the various raters' judgments were distorted precisely to the extent that they depended upon biased data samples. The intuitive psychologist's apparent willingness to make social inferences on the basis of highly biased data samples seems worthy of more systematic investigation in future research.

Social Roles and Social Perceptions

The phenomenon demonstrated in the two present experiments has clear implications for role-constrained encounters outside the laboratory. In fact, the specific relationship between advantaged questioners and disadvantaged contestants has obvious parallels within academic settings. Teachers consistently enjoy the prerogatives of questioners and students typically suffer the handicaps of answerers (although some students leap at opportunities to reverse these roles). Consider, as a particularly dramatic instance, the role-constrained encounters that characterize the typical dissertation "orals." The candidate is required to field questions from the idiosyncratic and occasionally esoteric areas of each examiner's interest and expertise. In contrast to the examiners, the candidate has relatively little time for reflections and relatively little power to define or limit the domains of inquiry. In light of the present demonstrations, it might be anticipated (correctly so, in the investigators' experience) that the typical candidate leaves the ordeal feeling more relief than pride, while his or her examiners depart with increased respect for each others' insight and scholarship.[6] Such evaluations, of course, may often be warranted; however, they may also reflect in whole or in part the inadequate allowance made for advantages and disadvantages in personal presentation. Perhaps an alternative procedure for the oral examination, one in which the candidate first posed questions for his examiners and then corrected their errors and omissions, might yield more elated candidates. Such a procedure might also produce examiners more impressed with the candidate and less impressed with each other.

[6] This example, and the more general speculations that follow concerning the social relevance of our demonstration, suggest an important question: Do the advantaged and the powerful overestimate the merits of their equally advantaged and powerful peers or does the fulfillment of one's advantageous role lead one to make adequate allowance for similar advantages enjoyed by others? The impact of the observer's own role experiences and perspectives upon their perceptions of others furnishes an interesting and significant avenue for subsequent research.

The present demonstrations dealt with encounters between questioners and answerers, but there are countless other contexts in which social roles bias interpersonal encounters and, consequently, interpersonal judgments. The basis for role-differentiated behavior in an encounter may be formal, as in the interactions between employers and employees, or it may be informal, as in the encounters between a domineering individual and a reticent one. Regardless of its basis, however, this role differentiation creates unequal control and unequal opportunity for advantaged self-presentation. Thus the employer can discuss his personal triumphs, avocations, and areas of expertise without risk of interruption while the employee enjoys no such opportunity. Similarly, the domineering partner in a friendship can determine whether poetry or poker will furnish the arena for personal presentation, and the choice is apt to be self-serving. Again, we do not contend that the participants or relevant observers are oblivious to the inequality of the participants' opportunities for advantageous self-presentation. Rather, we contend that the social judgments of the disadvantaged and of relevant observers will reveal inadequate *allowance* or *correction for* such inequalities.

It is important to resist premature generalizations and conclusions based on the present specific demonstrations. Nevertheless, if subsequent research demonstrates a more general tendency for disadvantaged social participants and observers to make inadequate allowance for the self-presentation advantages of role and rank, the implications may be all too clear. Individuals who, by accident of birth, favorable political treatment, or even their own efforts, enjoy positions of power, also enjoy advantages in self-presentation. Observers of such social interactions and the disadvantaged participants (although not the advantaged ones, if the present results are representative) are apt to underestimate the extent to which the seemingly positive attributes of the powerful simply reflect the advantages of social control. Indeed, this distortion in social judgment could provide a particularly insidious brake upon social mobility, whereby the disadvantaged and powerless overestimate the capabilities of the powerful who, in turn, inappropriately deem members of their own caste well-suited to their particular leadership tasks.

References

Bierbrauer, G. *Effect of set, perspective, and temporal factors in attribution.* Unpublished doctoral dissertation, Stanford University, 1973.

Heider, F. *The psychology of interpersonal relations.* New York. Wiley, 1958.

Jones, E. E., & Davis, K. E. From acts to dispositions: The attribution process in person perceptions. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2). New York· Academic Press, 1965.

Jones, E. E., & Harris, V. A. The attribution of attitudes. *Journal of Experimental Social Psychology,* 1967, *3,* 1–24.

Jones, E. E., & Nisbett, R. E The actor and observer: Divergent perceptions of the causes of behavior. In E. E. Jones et al (Eds.), *Attribution: Perceiving the causes of behavior.* Morristown, N.J.: General Learning Press, 1972.

Kelley, H. H. Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (Vol. 15). Lincoln. University of Nebraska Press, 1967.

Kelley, H. H. Attribution in social interaction. In E. E. Jones et al. (Eds.), *Attribution: Perceiving the causes of behavior.* Morristown, N.J.. General Learning Press, 1972.

Milgram, S. Behavioral study of obedience. *Journal of Abnormal and Social Psychology,* 1963, *67,* 371–378.

Mischel, W. *Personality and assessment.* New York: Wiley, 1968.

Mischel, W. Towards a cognitive social learning reconceptualization of personality. *Psychological Review,* 1973, *80,* 252–283.

Mischel, W. Processes in delay of gratification. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 7). New York: Academic Press, 1974.

Nisbett, R. E., & Borgida, E. Attribution and the psychology of prediction. *Journal of Personality and Social Psychology,* 1975, *32,* 932–943.

Ross, L. The intuitive psychologist and his shortcomings: Distortions in the attribution process In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 10). New York: Academic Press, 1977.

Tversky, A., & Kahneman, D. Availability: A heuristic for judging frequency and probability. *Cognitive Psychology,* 1973, *5,* 207–232.

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