The base-rate fallacy states that the use of stereotypes is eroded when subjects are given minimal but diagnostic, individuating information about a target. To examine the effect of causal attributions and subject gender on the use of stereotypes in evaluations and predictions, 180 college students (90 males, 90 females) were presented with one of three vignettes of a person behaving assertively. One version gave no attributional information while the others included a causal attribution which was internal and stable (IS) or external and unstable (EU). The gender of the actor in the descriptions was systematically varied. Subjects evaluated the actor's assertiveness, predicted the likelihood of future assertiveness, and estimated the percentage of males and females who were assertive. An analysis of the results showed that subjects did hold the stereotype that men are more assertive than women, with female subjects believing the gender gap to be larger. The IS attribution condition produced significantly higher evaluation and prediction ratings than the EU attribution condition. The use of the stereotypes was eroded for evaluation, but when predicting future assertiveness, male subjects used the stereotype while female subjects did not. Future research should identify under what circumstances and in what settings gender will elicit differential attributions. (BL)
THE EFFECT OF ATTRIBUTIONS ON JUDGMENTS OF ASSERTIVENESS

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Abstract

The base-rate fallacy has been supported by Locksley, Borgida, Brekke, and Hepburn (1980) and others. The purpose of the present study is to examine some specific factors which may affect the use of base-rates or stereotypes. Undergraduates were presented with vignettes which described a male or female student behaving assertively. One version gave no attributional information while the others included a causal attribution which was internal and stable or external and unstable. Subjects were asked to evaluate the actor's assertiveness and predict the likelihood of future assertiveness. Subjects were also asked to estimate the percentage of females and males who were assertive. It was found that subjects do hold the stereotype that men are more assertive than women. Causal attributions had a significant effect on evaluations and predictions. The use of the stereotype was eroded for evaluation but when predicting future assertiveness, male subjects used the stereotype while female subjects did not.
The Effect of Attributions on Judgments of Assertiveness

The base-rate fallacy has been supported by Locksley, Borgida, Brek e. an t. Hepburn (1980) and other investigators (Locksley, Hepburn, & Ü. t. z., 1982). In essence it has been found that the use of stereotypes is eroded when subjects are given minimal but diagnostic individuating information about a target. The purpose of the present study is to examine some specific factors which may affect the use of base-rates or stereotypes.

Locksley et al. (1980, experiment 2) found that people hold the belief that men are more assertive than women when they are asked to indicate their estimates of the percentage of women and the percentage of men who are assertive. When provided only with information about the gender of the target or when provided with nondiagnostic information (i.e., information about behavior unrelated to assertiveness) and asked to judge the assertiveness of an actor, subjects appear to use their base-rates. However, when provided with brief (2-3 sentences) diagnostic information, that is, information about the actor behaving assertively in a particular situation, the use of the stereotype was eroded and male and female actors were seen as equally assertive. In the various conditions of this study information about actors was the same except for gender. As reported in Locksley et al. (1982) several studies have found similar results using traits other than assertiveness. These results are counter-intuitive. If a two to three sentence description providing only minimal information about a target can totally erode the use of
stereotypes, why are people suffering from the effects of stereotyping in many aspects of everyday life? As an example, we are not as optimistic as Locksley et al. (1982) about the erosion of the negative effects of stereotypes on obtaining employment, even at levels where prospective employers have much information about applicants.

It has been noted that when base-rates are causally relevant, they are more likely to be used in making judgments and predictions (Borgida, Locksley, & Brekke, 1981). Gender has been found to be causally relevant to perceptions of achievement related tasks (Deaux, 1984). Gender may also be perceived as causally related to assertive behavior. Before this can be assessed, it is important to first establish if attributions have an effect on judgments of assertiveness. If such attributions have an effect then it might be worthwhile to examine if gender might be perceived to be related to specific causes of assertion. Thus the first factor to be examined in this study is the role of causal attributions on evaluations of assertive behavior.

A second factor which is addressed in this research is the role of the gender of the subject. Past research is unclear in assessing the impact of the subject's gender on judgments of the assertiveness of female and male actors. Furthermore, pilot data indicated that the gender of the subject may be significant.

Additionally, base-rates were assessed as in Locksley et al. (1980, experiment 2) to insure that the subjects did in fact hold the stereotype that men are more assertive than women, as well as
to assess the impact of base-rates on judgments.

For the present study, subjects were given one of three descriptions of a person behaving assertively. The No Attribution condition (NoA) consisted of one of the Locksley et al. (1980, experiment 2) diagnostic descriptions. In the other two conditions a statement was added to this description which indicated that the actor was behaving assertively either due to an internal and stable cause, a long held conviction to stand up for his or her rights (IS), or due to an external and unstable cause, at the suggestion of the teacher (EU). The gender of the actor in the descriptions was systematically varied. The descriptions were pretested with undergraduate and graduate psychology students to select those which were clearly IS and EU using Weiner's (1979) formulation of these dimensions.

Method

Subjects

Ninety male and ninety female introductory psychology students at the University of Southern California participated in this study for class credit.

Materials

Three versions of vignettes describing a student's behavior were presented to subjects. In the NoA condition, the vignette stated: "The other day Joan (John) was in a class in which she (he) wanted to make several points about the readings being discussed. But another student was dominating the class discussion so thoroughly that she (he) had to abruptly interrupt this student in order to
break into the discussion and express her (his) own views." The IS and EU vignettes were identical except for the addition of another sentence: in the IS condition "Joan (John) has always felt that people should stick up for themselves and she (he) feels good about doing what she believes in."; in the EU condition "Joan (John) has been uncertain about standing up for her (his) own rights but is glad she (he) followed her (his) teacher's advice."

Subjects were then instructed to respond to the following five questions: (a) How assertive is this man (woman) in general?, (b) How likely is it that this woman (man) will behave assertively in the future?, (c) How well does this man (woman) get along with others?, (d) How intelligent is this man (woman)?, and (e) How imaginative is this man (woman)? A nine point bipolar rating scale was provided after each question. The end points for the rating scales were:

(a) "not at all assertive", "very assertive"; (b) "extremely unlikely", "extremely likely"; (c) "gets along very poorly", "gets along very well"; (d) "very low intelligence", "very high intelligence"; and (e) "not at all imaginative", "extremely imaginative".

Subjects were also asked to "Estimate the percentage of males who are assertive" and "Estimate the percentage of females who are assertive". The order of presentation of these two questions was counterbalanced so that half of the subjects were presented with this task before the vignette and bipolar rating scales while the other half were presented with this task following the vignette and rating scales.
Procedure

Subjects were told that the study was concerned with peoples' impressions of how assertive other people are. A brief definition of assertiveness was also given. Each subject was presented with only one vignette.

Results

As in the Locksley et al. (1980, experiment 2) study, the subjects did have stereotypic base-rates for assertiveness. The overall mean estimate for assertiveness was 61% for men and 47% for women, $t(177) = 10.76, p < .0001$. When the base-rate was analyzed by gender of subject, estimates of the percentage of assertive females was the same for male ($M = 46$) and female ($M = 49$) subjects, $t(177) = -1.16, p > .05$. The estimates of the percentage of assertive males, however, differed by gender of subject ($t(177) = -3.09, p < .003$) with female subjects seeing more men as being assertive ($M = 65$) than male subjects ($M = 57$). When differences between estimates of percentage of assertiveness for female and male targets given by female and male subjects were analyzed, female subjects saw a larger difference, $t(177) = -1.91, p < .06$. Thus it could be concluded that female subjects hold a stronger base-rate or stereotype than male subjects.

See Figure 1

Attributions do have a very significant effect on judgments of assertiveness. There was a main effect for attribution in the
evaluation question, \( F(2, 168) = 14.65, \ p < .0001 \), and the prediction question, \( F(2, 168) = 11.25, \ p < .0001 \). As expected the IS attribution condition produced significantly higher evaluation (\( M = 7.42 \)) and prediction (\( M = 7.68 \)) rating than the EU attribution condition (\( M = 6.07, \ M = 6.60 \)). For each question, the means were significantly different (\( p < .05 \)) when compared using Duncan's multiple range test.

See Figure 2

Three other dependent variables (gets along with others, intelligence, and imagination) were included to see if the attribution manipulation was specific to the assertiveness ratings. For these dependent variables there were no differences in the two attribution conditions.

There was a significant interaction (gender of actor x gender of subject) for the prediction question but not the evaluation question, \( F(1, 168) = 5.39, \ p < .03 \). Male actors were seen as equally assertive by male and female subjects, (\( M = 7.36, \ M = 7.09 \)), \( F(1, 89) = 1.02, \ p > .05 \). Female actors, however, were seen as significantly less assertive by male subjects (\( M = 6.73 \)) but equal to male actors by female subjects (\( M = 7.33 \)), \( F(1, 89) = 4.27, \ p < .04 \). A post hoc analysis of the order of presentation of the questions asking for base-rates x gender of actor x gender of subject yielded a three-way interaction, \( F(1, 172) = 10.03, \ p < .02 \). All of the differences reported in the two-way interaction described above occurred only
with those subjects who gave their base-rate estimates prior to reading the vignette.

See Figure 3

Discussion

Locksley et al. (1980, experiment 2) was partially replicated. Subjects did hold the stereotype that men are more assertive than women with female subjects seemingly believing the gender gap to be larger. Despite having differential base-rates, subjects rated a male actor and a female actor as equally assertive. It appears that when using this design, subjects do use individuating information and disregard base-rate information in evaluations. The findings differ from Locksley et al. (1980, Experiment 2) in that predictions of future assertiveness were consistent with base-rates for male subjects but not for female subjects. While base-rates may not influence evaluations of immediate situations, perhaps because descriptions of the behavior in question are clear and incontrovertible, they may influence judgments of future behavior where there is room for the effects of bias.

It is unclear why female subjects did not behave like male subjects in their predictions. One explanation might involve construct accessibility (Higgins & King, 1981). Only when subjects were asked to consider and express their stereotypes prior to making predictions about the actor's future behavior was there evidence of the use of
the stereotype. This is clear support for the notion of recency of activation of a construct affecting accessibility of the construct, at least for the male subjects. Another notion is that frequency of activation of a construct affects accessibility. Higgins and King (1981) also state that motivational factors can affect construct accessibility in that search requirements are imposed by one's needs, task goals, etc. Men's superior position in ratings of many personal attributes is well known (Fiske & Taylor, 1984). Although this explanation is highly speculative, for male subjects the activation of a construct of male superiority might be close to automatic, however, due to motivational factors (e.g., a need to see themselves as equal to men) women may not be as likely to access this type of construct.

Another explanation of these results involves the possible effect of salience. Female subjects appear to hold a stronger base-rate than male subjects, thus an assertive female is a very salient deviation from the base-rate in a positive direction. Salient behavior is seen as less under the control of the situation and particularly indicative of a person's underlying disposition (Fiske & Taylor, 1984). Thus female subjects, even in the different attribution conditions may see the assertive behavior of the female actor as more internally controlled, but more importantly, as more stable. This perception could affect ratings of future behavior in the direction found while not necessarily affecting evaluations of current behavior in the same manner. Weiner (1979) has demonstrated that
the more stable a trait is seen, then the more likely it is that raters will predict that this trait will affect future performance.

This study has demonstrated that attributions which subjects hold for particular assertive behaviors have a significant impact on judgments of assertiveness and future assertiveness. The next step would be to identify under what circumstances and in what settings gender will elicit differential attributions. Deaux and Emswiller (1974) have shown that differential attributions are given to female and male actors when gender-linkage of a task is manipulated. Darley and Gross (1983) found that subjects used stereotypes in rating test performance of children from different socio-economic backgrounds only when they were provided with a level of information which they were able to perceive as sufficiently rich to allow them to test their implicit hypotheses (or stereotypes) even though the truly diagnostic information was the same for both groups of children. It may be that the paradigm used here and in the Locksley et al. (1980) study does not provide a sufficiently rich level of information to enable subjects to believe that they can test their implicit hypotheses and thus base-rates may tend to be ignored.
References


Estimates of the percentage of females and males who are assertive.
FIGURE 2
THE EFFECT OF ATTRIBUTION CONDITION ON RATINGS OF ASSERTIVENESS

HIGH ASSERTIVENESS RATINGS

LOW

INTERNAL STABLE
EXTERNAL UNSTABLE
NO ATTRIBUTION

ATTRIBUTION CONDITION

EVALUATIONS
PREDICTIONS
FIGURE 3

PREDICTIONS OF FUTURE ASSERTIVENESS

ORDER OF REQUEST FOR BASE-RATE ESTIMATE