

Gender, the Perception of Aggression, and the Overestimation of Gender Bias

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The purpose of this study was to investigate how the gender of aggressor, target, and observer influences the perception and evaluation of aggression. One hundred seventy-one university students (predominantly White) read 1 of 8 vignettes that described an aggressive act. The aggressor–target gender combinations and the aggressive act were varied. Data did not support the hypothesis that, because of the impact of gender stereotypes, participants would perceive more aggressiveness in men’s aggression than in women’s aggression. Participants rated women’s aggression as more acceptable than men’s aggression, and male participants considered the aggression more acceptable, apparently because they saw the act as less aggressive. In addition, participants estimated how most men/women would perceive and evaluate the aggression. Results suggest that people overestimate how biased others are toward members of their own gender.

KEY WORDS: gender; social perception; schemas; stereotypes; aggression; violence; ingroup-outgroup biases.

INTRODUCTION

In only a handful of studies has the influence of the gender of aggressor, target, and observer on people’s mental representations of aggression or violence been investigated.² Although the available literature does not justify any strong conclusions, a number of trends appear to be emerging. As regards the perceived level of aggression of a given act, there is evidence that people sometimes attribute greater aggressiveness to men than to women, people perceive greater aggression when the target is a woman than a man, and female observers on average see greater levels of aggression than do men (de Meijer, 1991; Harris & Knight-Bohnhoff, 1996; Herzberger & Tennen, 1985). Another judgment people make concerning aggression is its acceptability. Research suggests that

people view aggression as less acceptable when a man is the aggressor or a woman the target (Harris & Knight-Bohnhoff, 1996; Koski & Mangold, 1988), and male observers see aggression as more acceptable than do women (Harris, 1991). In this study, I aimed to replicate these earlier findings and to explore some new issues. Little research has been done on the influence of the gender of aggressor, target, and observer on the causal attributions made for aggression. Among the questions this study was designed to answer was whether people would be more likely to attribute men’s aggression to a personal disposition than they would women’s aggression. In addition, I investigated how accurately people would predict how men and women in general perceive and evaluate aggression, depending on the gender of aggressor and target.

The principles of social cognition have provided a valuable tool in the study of the perception and interpretation of aggression. It is sometimes said we see what we expect to see. This claim can easily be exaggerated—often it is the experiences and events we least expect that stand out most in our perception of the world and in our memory (Rojahn & Pettigrew, 1992; Schuetzwohl, 1998). However, in ambiguous

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²Aggression is defined here as any act, verbal or physical, intended to hurt a person or another animal, whether physically or emotionally. Violence is defined as physical aggression; thus, violence is one example of the broader concept of aggression.

situations, and when we have little information, we are likely to interpret events in a manner consistent with our expectations, or schemas (Fiske & Taylor, 1991; von Hippel, Jonides, Hilton, & Narayan, 1993). Once a schema has been activated, people are likely to look for, notice, and recall anything in their experience that is clearly consistent with that schema (Bodenhausen, 1988; Fiske & Taylor, 1991). Mildly inconsistent experiences are often assimilated to the schema (Rojahn & Pettigrew, 1992), and the stronger a schema is, the more inconsistent an event must be in order for it to be noticed and remembered (Fiske & Taylor, 1991; Schuetzwohl, 1998). The net effect of these processes is that our expectations sometimes lead us to see what we expect to see, even when it is not there. This in turn may further strengthen our initial expectations.

These cognitive tendencies have implications for our perception of people and groups. Commonly held schemas of the members of different social groups are known as stereotypes, and these can lead to inaccuracies in social perception. Among the more common stereotypes are those based on gender. Stereotypes of women have traditionally cast them as submissive, dependent, and easily hurt (Ruble, 1983). Stereotypes of men have often been more favorable and included characteristics such as independence and adventurousness. However, stereotypes of men have also included some less desirable traits. One example is the idea that men are aggressive and violent (Ruble, 1983; Straus, 1999). Note that although I suggest that this idea is part of a stereotype, this is not to deny that men are, on average, more aggressive than women. Although researchers are not unanimous, a great deal of research supports the view that men are indeed more aggressive than women, at least in terms of physical aggression (Eagly & Steffen, 1986).

Nonetheless, even if the stereotype contains an element of truth, it could still potentially lead to inaccurate social perception. If there is a relatively common schema of men as aggressive, or if people's schemas of aggressive men are more accessible than their schemas of aggressive women, people may interpret an ambiguous act performed by a man as more aggressive than the same act performed by a woman. Furthermore, people may notice and recall acts of aggression by men more than they would women's aggression. Although the expectation of greater aggression from men is based on an accurate view of men and women *in general*, this expectation could nonetheless lead to inaccuracies in people's perception of *specific* individuals and incidents. In other words, because

people believe, correctly, that more men than women engage in violence, they may incorrectly perceive a greater level of aggression in an act by a man than in the same act performed by a woman.

Some research supports this line of reasoning. In one study (Harris & Knight-Bohnhoff, 1996), participants read a sequence of vignettes that described aggressive interactions. One vignette described an aggressor grabbing another person by the hair in a swimming pool and forcibly holding this person's head under the water. The experimenters varied the gender of the aggressor across experimental groups. Participants saw the act as more aggressive when the aggressor was a man. In the same study, participants also rated shoving a neighbor into the bushes as more harmful when the aggressor was a man. (However, results of a second study by the same authors did not replicate the first of these two findings, which raises questions about how robust the effect is.) In another study, participants (both men and women) saw greater aggressiveness in a series of bodily movements performed by men than they did in the same movements performed by women (de Meijer, 1991). In experiments on the perception of parental discipline, researchers found that when a father punished his child, the punishment was rated as harsher than when the disciplinarian was the mother (Herzberger & Tennen, 1985; Howe, Herzberger, & Tennen, 1988).

In addition to the level of aggression, another important aspect of people's mental representation of an aggressive act is the causal attributions made for that act—whether it is attributed to a personal disposition or to situational forces. Although little research has addressed this question, it stands to reason that, if there exists a widespread stereotype of men as aggressive, people will view an act of men's aggression as consistent with this conception of the masculine personality. As a result, observers would be more likely to make an internal attribution for the man's behavior. By contrast, people might judge an act of aggression perpetrated by a woman as out of character, that is, less a product of a personal disposition. This is one of the issues this study was designed to investigate.

A third dimension along which people make judgments about aggression is its acceptability. Evidence suggests there is a tendency for people to judge aggression perpetrated by men as less acceptable than women's aggression. Results of one study demonstrated the greater acceptability of women's aggression in the context of domestic violence (Koski & Mangold, 1988). Using vignettes set in other contexts, Harris and Knight-Bohnhoff (1996) found that

most participants thought aggression was equally unacceptable from a man or a woman. Among those who *did* judge the aggression differently, however, men's aggression was judged less acceptable.

The gender of the aggressor is not the only variable that influences the perceived levels, causes, and acceptability of aggression. Also relevant is the gender of the *target* of aggression. There is evidence that people tend to perceive greater aggression in acts against women than against men (Harris, 1991). For example, in one study, participants viewed shoving a neighbor as more aggressive when the neighbor was a woman (Harris & Knight-Bohnhoff, 1996). In another study, the same physical punishment given by a parent was rated as more severe and abusive when directed toward a daughter than toward a son (Herzberger & Tennen, 1985), although the results of another study suggested the opposite pattern (Howe et al., 1988).

In addition to influencing people's perceptions of the intensity of aggression, the gender of the recipient of aggression may also influence the causal attributions made for an aggressive act. In one study, participants read a vignette that described an incident of domestic violence (Harris & Cook, 1994). The vignettes read by the different groups in the experiment varied only in whether the husband aggressed against the wife or the wife against the husband. When the target was the husband, participants rated the target as more to blame for the incident than when the target was the wife. It is difficult to know how widely such a finding can be generalized, however. Domestic violence, like sexual violence, is an area in which men are generally the perpetrators of the aggression (Harris & Cook, 1994). It is possible that, in a situation less strongly linked in people's minds with men's aggressiveness, people will not differ in the attributions they make for aggression directed toward a woman rather than a man. Another goal of this study was to assess this possibility.

The gender of the target of aggression also appears to influence people's ratings of the acceptability of aggression. Aggression directed toward a woman is generally judged more negatively than the same aggression directed toward a man (Harris & Knight-Bohnhoff, 1996; Herzberger & Tennen, 1985). Given that men's aggression is considered less acceptable than women's aggression, and aggression against women is considered less acceptable than aggression against men, it is not surprising that at least one study has found that male-to-female aggression is regarded as the least acceptable combination (Koski & Mangold, 1988). There are various reasons this may

be. One explanation is the "strong norms . . . which proscribe aggression against females, particularly by males" (Harris, 1991, p. 183). A second reason (and perhaps the basis of these norms) is that, because men are generally physically stronger than women, of all the possible aggressor-target gender combinations, male-to-female aggression may seem least fair and thus least acceptable.

To understand how people perceive aggression in which they are not personally involved, not only must the gender of the aggressor and target be taken into account, but also the gender of the observer (Harris & Knight-Bohnhoff, 1996). A number of differences have been found between men and women concerning the perception and evaluation of aggression. The main finding is that the gender of the observer mediates the perceived level of aggression of an act. In one study, although few differences were found between male and female observers in their ratings of the harmfulness of an aggressive act, researchers found that those differences that did exist were in the direction of men perceiving the aggression as less harmful (Harris & Knight-Bohnhoff, 1996). Results of a widely cited meta-analysis by Eagly and Steffen (1986) suggest women on average perceive aggression as more serious than do men. In a conceptually related area, researchers found that women judged examples of children being disciplined as more severe than did men (Herzberger & Tennen, 1985). As well as seeing greater levels of aggression, women on average rate aggression as less acceptable than do men (Harris, 1991).³

Hypotheses and Aims

Although previous research points to some tentative conclusions about how the gender of aggressor, target, and observer influences the perception of aggression, there is not yet enough research in this area to justify any firm conclusions. Thus, one of the goals of this study was to try to replicate some of the earlier findings. In addition, I aimed to extend the prior research in a number of ways. Hypotheses were formulated concerning how people would respond to an aggressive act described in a vignette, depending on the gender of the aggressor, target, and participant. The hypotheses covered three main areas: the perceived level of aggression, the extent to which an

³This is a curious finding considering that at least one study (Harris, 1995) has shown that men are also more likely than women to think an aggressor should be punished.

aggressive act was explained as being a product of an internal disposition or the external situation, and the acceptability of the act.

First, several predictions were made concerning the level of aggression participants would report. In light of the discussion on the impact of schemas on perception, it was predicted that, overall, more aggression would be reported when a vignette described an aggressive act by a man than the same act performed by a woman. Because it was judged equally likely that members of both genders would hold a schema of men as more aggressive than women, it was expected that this difference would be found among both male and female participants. It was also predicted on the basis of earlier research that a greater level of aggression would be perceived when the target of the aggressive act was a woman rather than a man. Furthermore, it was hypothesized that female participants would, on average, perceive higher overall levels of aggression than would male participants.

Further hypotheses concerned the attributions people would make as to the cause of the aggressive act described in a vignette. On the basis of the idea that aggressive behavior is an element of many people's schemas of the typical masculine personality, it was predicted that men's aggression, more than women's, would be seen as a product of a personal disposition. On the basis of the assumption that men and women would be equally likely to hold the schema of the aggressive masculine personality, it was predicted that this difference would be found among participants of both genders. In addition, it was hypothesized that participants would be more likely to make an internal attribution for the aggressor's act when a woman was the target of this act.

A third group of hypotheses dealt with the level of acceptability reported for an act of aggression. On the basis of past research and the theoretical considerations discussed earlier, it was predicted that aggression would be considered less acceptable when the aggressor was a man and when the target of the aggression was a woman. Furthermore, following the trend revealed in earlier research, it was predicted men would consider the aggression more acceptable than would women.

Most of the prior research into the influence of gender on the perception of aggression has focused on *physical* aggression. There is, however, reason to question whether the trends emerging from this research apply also to verbal aggression. Although men are more likely than women to engage in physical aggression, the two groups engage in a similar amount

of verbal aggression (Eagly & Steffen, 1986). If this difference is represented in people's schemas of the genders, there should be corresponding differences in the perception of physical aggression versus verbal aggression. For instance, although people may perceive greater aggressiveness in an act of physical aggression by a man, when the aggression is verbal, this effect may disappear. To investigate such issues, this study included both a physical and a verbal aggression condition.

A final area of exploration was inspired by research that suggests that people are not always good at predicting the extent to which members of the other gender will endorse certain gender-related attitudes (Edmonds & Cahoon, 1993; Edmonds, Cahoon, & Shipman, 1991). This earlier research prompted several questions. First, how accurately would participants predict aggression-related attitudes of members of the other gender? Second, how accurately would participants predict the expressed attitudes of members of *their own* gender? To investigate these questions, it was decided that participants would be asked to predict (1) the extent to which men and women in general would agree that an act could be classed as assertive rather than aggressive (the latter presumably being a less favorable judgment) and (2) how acceptable most men/most women would consider the aggressive act. Little was found in the existing literature to suggest answers to these questions, and thus no specific hypotheses were formulated. However, it was decided the participants' "predictions" concerning the responses of men and women in general would be treated as separate hypotheses to be tested against the data the participants themselves provided.

METHOD

Participants

The participants in this study were 171 university students. Participation was voluntary. The original intention was that the entire sample would consist of distance students enrolled in undergraduate psychology courses. This sample was chosen because they typically represent a much wider range of ages, backgrounds, and occupations than do on-campus students, a fact that could be expected to increase the external validity of the results. Brief on-campus courses are organized each semester for distance students, and the experimenter recruited 124 participants from seven of these weekend courses. However, only 22

(17.7%) of these participants were men. This did not provide enough men for the eight experimental conditions planned for this experiment. Consequently, a further 47 men were recruited from on-campus 1st-year psychology and statistics classes.

These two groups of participants—the initial sample of distance students and the 47 men who were recruited subsequently—differed not only in terms of gender composition but also in terms of age. The mean age of the 124 distance students was 38.8 ($SD = 9.58$), whereas the mean age of the 47 men from on-campus courses was 21.8 ($SD = 8.28$). In addition, the distribution of men and women across different age groups was not particularly even. For example, of the participants aged between 15 and 24, 40 were men and 13 women; of the 25–34-year-olds, 32 were women as opposed to only 5 men. Because of this uneven distribution of genders across the age groups, the variables of gender and age were confounded. Looking at the sample as a whole, 102 (59.6%) were women, and 69 (40.4%) men. The mean age was 32.7 ($SD = 11.41$). The mean age of the men was 28.7 ($SD = 13.06$); the mean age of the women was 35.5 ($SD = 9.29$). Most were of European ancestry, although there were also some Maori, Pacific Islander, and Asian respondents.

Materials

Each participant received a five-page questionnaire entitled *Perceptions of Interpersonal Conflict*. On the first page was a short vignette that was specifically constructed for this study. The vignette detailed a scenario in which two individuals became involved in a dispute. This hypothetical interaction culminated in one of the pair acting in an aggressive manner toward the other, either shouting at, or shouting at and then purposely bumping the other person. The genders of the aggressor and target were also varied across vignettes. The name Paul or Jane was used to identify the aggressor, and the name Marie or David to identify the target. There were eight versions of the vignette in total. Specifically, there was a shouting version and a bumping version of each of the following gender combinations: male-to-male (MM), male-to-female (MF), female-to-male (FM), and female-to-female (FF) aggression.

On the pages following the vignette were 50 items to which the participants were asked to respond. These items were devised for this research. Most were intended to tap into one of three main constructs (the level of aggression perceived in the

act; the extent to which a dispositional versus a situational attribution was made for the act; and the acceptability of the act). Other items in the questionnaire did not tap into any of these three constructs, but stood on their own. For example, one item asked participants to rate how acceptable they thought most women would consider the aggressive act; another asked participants to rate the extent of their agreement with the idea that most men would view the act as assertive rather than aggressive.

Procedure

Each member of the various university classes invited to participate was given an information sheet to read. This detailed their rights as research participants and explained that completing the questionnaire would constitute giving informed consent. Standardized instructions were read to each group of potential participants. These explained that the study was investigating such issues as whether men and women tend on average to view scenes of interpersonal conflict in similar or different ways, and whether the context of a scene of interpersonal conflict influenced people's perceptions and evaluations of that conflict. (Note that these instructions raise the salience of gender, and could potentially have influenced the data.)

Following this, participants read the vignette and responded to the questionnaire. As noted, there were eight versions of the vignette, and thus eight experimental groups were formed. To randomize the assignment of participants to one of the eight experimental groups, the vignettes were put into a random order before being handed out. Once the participants had completed and handed back their questionnaires, they were debriefed and thanked for participating in the study. An address form was made available for participants to leave their names and addresses if they wished to receive a brief summary of the results. Summaries were sent to those participants once the study was completed.

Dependent Variables

Aggregate Variables

The study involved seven dependent variables, and each was measured using a 5-point Likert scale ranging from 0 (*low*) to 4 (*high*). The first three dependent variables were aggregate scores. The scale

value for each participant was the mean of the items that made up that scale. (1) *Level of aggression*: The 12 items that made up this scale had an acceptable level of internal consistency ($\alpha = .80$). Higher scores on this variable equated to higher perceived levels of aggression. (2) *Causal attribution*: The level of internal consistency of the 11 items that made up the causal attribution scale was also acceptable ($\alpha = .83$). The higher the score on this variable, the more the aggressor's act was attributed to an internal disposition, as opposed to external factors. (3) *Acceptability*: The seven items that made up this scale had an acceptable degree of internal consistency ($\alpha = .86$). The higher the score on this scale, the more acceptable the participant judged the act to be.

Single-Item Variables

The four other dependent variables were based on single items from the questionnaire, and concerned predictions made by the participants as to how men in general and women in general would respond to the aggressive act. The first two single-item variables were as follows: (4) *Assertive to most men* and (5) *Assertive to most women*. For these two variables, participants were asked to rate their agreement with the statement: "Most men (women) would consider Paul's (Jane's) act to be assertive rather than aggressive." Higher scores equated to greater agreement that most men (women) would label the act assertive.⁴ The next two variables were as follows: (6) *How acceptable to most women* and (7) *How acceptable to most men*. These variables indicated the extent to which participants estimated that women in general (or men in general) would consider the act acceptable. The higher the score, the more acceptable participants believed women (or men) would consider the act.

An Estimation Maximization (EM) missing value analysis was conducted to impute the values of missing items. The decision to impute missing values was made on the grounds that listwise deletion would result in the exclusion from the analysis of participants who had failed to respond to one item or a few items. If these participants differed systematically from the rest, their exclusion would diminish the external validity of the study. The EM missing values analysis was selected over the mean substitution method as

⁴It was assumed that the label assertive would have more positive connotations than aggressive. It is worth noting, though, that the connotations and meanings of these words may differ among individuals and cultures.

the latter can truncate the standard deviations of the data, a shortcoming the EM method was designed to overcome (Little & Rubin, 1987).⁵

RESULTS

Data Analysis

Tables I–IV display the means and standard deviations for each dependent variable by gender of aggressor, gender of target, gender of participant, and type of aggressive act. Scores on the seven dependent variables were analyzed using seven separate ANOVAS. Each involved a $2 \times 2 \times 2 \times 2$ (Aggressor [male, female] \times Target [male, female] \times Participant [male, female] \times Act [male, female]) between-group factorial design. Because gender and age were confounded (men were on average younger than women), age was used as a covariate in all data analyses. Table V displays the relevant results of the ANOVAS.

Gender of Aggressor

The effect of aggressor on the perceived level of aggression was not significant, $F(1, 170) = 0.37$, $p = .546$, $\eta^2 = .002$. This indicates the act was not seen as any more aggressive when the aggressor was a man rather than a woman. The effect of aggressor on causal attribution was also not significant, $F(1, 170) = 0.63$, $p = .429$, $\eta^2 = .004$, with no differences in the extent to which an act was attributed to dispositional versus situational factors depending on whether the aggressor was a man or a woman. There was, however, a main effect of aggressor on the acceptability of the aggressive act, $F(1, 170) = 4.13$, $p = .044$, $\eta^2 = .026$. As Table I shows, participants rated men's aggression as less acceptable than women's aggression. Further main effects of aggressor are reported in the section Predictions Made by the Participants.

Gender of Target

There were no significant effects of target on level of aggression, $F(1, 170) = 0.50$, $p = .482$, $\eta^2 = .003$, or on causal attribution, $F(1, 170) = 0.99$, $p = .322$, $\eta^2 = .006$. Participants did not rate aggression

⁵The main difference that the use of EM made was that one result reached statistical significance that would not have if listwise deletion had been used. This was the finding that women's aggression is rated as more acceptable than men's aggression.

Table I. Means and Standard Deviations for Each Dependent Variable by Gender of Aggressor

Dependent variable	Male aggressor (N = 86)	Female aggressor (N = 85)
Level of aggression ^a	2.25 (0.69)	2.20 (0.66)
Causal attribution ^b	1.98 (0.71)	1.89 (0.66)
Acceptability ^a	1.11 (0.80)*	1.33 (0.88)*
Assertive to most men ^c	2.14 (1.14)***	1.31 (1.07)***
Assertive to most women ^c	0.90 (0.97)**	1.36 (1.10)**
How acceptable to most women ^d	0.97 (1.00)***	1.52 (1.11)***
How acceptable to most men ^d	2.20 (1.03)***	1.47 (1.06)***

Note. Values in parentheses are standard deviations.
^a0 (low) to 4 (high).
^b0 (situational attribution) to 4 (dispositional attribution).
^c0 (low agreement that most men/women would label the act assertive rather than aggressive) to 4 (high agreement).
^d0 (unacceptable) to 4 (acceptable).
 p* < .05. *p* < .01. ****p* < .001.

perpetrated against a woman as any more aggressive, or as any more a product of a personal disposition, than aggression against a man. Although there was a trend toward aggression directed toward a woman being seen as less acceptable than aggression toward a man (see Table II), this was not statistically significant, $F(1, 170) = 3.15, p = .078, \eta^2 = .020$.

Gender of Participant

Table III shows the means and standard deviations pertaining to all main effects of participant.

Table II. Means and Standard Deviations for Each Dependent Variable by Gender of Target

Variable	Male target (N = 82)	Female target (N = 89)
Level of aggression ^a	2.21 (0.69)	2.24 (0.66)
Causal attribution ^b	1.89 (0.68)	1.98 (0.69)
Acceptability ^a	1.34 (0.89)	1.10 (0.78)
Assertive to most men ^c	1.79 (1.29)	1.67 (1.07)
Assertive to most women ^c	1.24 (1.13)	1.02 (0.99)
How acceptable to most women ^d	1.37 (1.20)	1.12 (0.96)
How acceptable to most men ^d	1.89 (1.19)	1.78 (1.03)

Note. Values in parentheses are standard deviations.
^a0 (low) to 4 (high).
^b0 (situational attribution) to 4 (dispositional attribution).
^c0 (low agreement that most men/women would label the act assertive rather than aggressive) to 4 (high agreement).
^d0 (unacceptable) to 4 (acceptable).

Table III. Means and Standard Deviations for Each Dependent Variable by Gender of Participant

Variable	Male participants (N = 69)	Female participants (N = 102)
Level of aggression ^a	2.09 (0.69)*	2.32 (0.65)*
Causal attribution ^b	1.86 (0.71)	1.99 (0.67)
Acceptability ^a	1.40 (0.91)*	1.10 (0.78)*
Assertive to most men ^c	1.73 (1.24)	1.72 (1.14)
Assertive to most women ^c	1.25 (1.22)	1.05 (0.94)
How acceptable to most women ^d	1.41 (1.22)	1.13 (0.98)
How acceptable to most men ^d	1.81 (1.13)	1.85 (1.10)

Note. Values in parentheses are standard deviations.
^a0 (low) to 4 (high).
^b0 (situational attribution) to 4 (dispositional attribution).
^c0 (low agreement that most men/women would label the act assertive rather than aggressive) to 4 (high agreement).
^d0 (unacceptable) to 4 (acceptable).
 **p* < .05.

There was a main effect of participant on level of aggression, $F(1, 170) = 6.10, p = .015, \eta^2 = .038$; women in the study perceived a higher level of aggression than did men. In addition, men rated the acts as significantly more acceptable than did women, $F(1, 170) = 4.77, p = .031, \eta^2 = .030$. With regard to this last result, however, judgments of the acceptability of aggression are presumably influenced by the perceived level of the aggression, and on average men perceived less aggression than did women. Thus, to estimate whether any gender differences in acceptability ratings would be found for acts that male and female participants perceived as equally aggressive,

Table IV. Means and Standard Deviations for Each Dependent Variable by Type of Act

Variable	Shout (N = 88)	Bump (N = 83)
Level of aggression ^a	2.04 (0.68)***	2.42 (0.61)***
Causal attribution ^b	1.82 (0.68)*	2.05 (0.68)*
Acceptability ^a	1.36 (0.86)*	1.07 (0.81)*
Assertive to most men ^c	1.89 (1.12)	1.55 (1.22)
Assertive to most women ^c	1.25 (0.94)	1.00 (1.17)
How acceptable to most women ^d	1.34 (1.09)	1.13 (1.08)
How acceptable to most men ^d	1.88 (1.11)	1.78 (1.10)

Note. Values in parentheses are standard deviations.
^a0 (low) to 4 (high).
^b0 (situational attribution) to 4 (dispositional attribution).
^c0 (low agreement that most men/women would label the act assertive rather than aggressive) to 4 (high agreement).
^d0 (unacceptable) to 4 (acceptable).
 p* < .05. **p* < .001.

Table V. Relevant ANOVA Results for Effects of Gender on the Perception of Aggression

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
<i>Main effects</i>				
Aggressor (A)				
Level of aggression	1	0.37	.546	.002
Causal attribution	1	0.63	.429	.004
Acceptability	1	4.13	.044	.026
Target (T)				
Level of aggression	1	0.50	.482	.003
Causal attribution	1	0.99	.322	.006
Acceptability	1	3.15	.078	.020
Participant (P)				
Level of aggression	1	6.10	.015	.038
Causal attribution	1	0.98	.323	.006
Acceptability	1	4.77	.031	.030
Act				
Level of aggression	1	17.19	<.001	.100
Causal attribution	1	5.23	.024	.033
Acceptability	1	5.45	.021	.034
<i>Predictions made by the participants</i>				
A				
Assertive to most men	1	21.84	<.001	.124
Assertive to most women	1	11.15	.001	.067
How acceptable to most men	1	17.09	<.001	.100
How acceptable to most women	1	16.61	<.001	.097
<i>Tests of the participants' predictions</i>				
A × P				
Level of aggression	1	0.06	.812	<.001
Acceptability	1	1.09	.299	.007
Error <i>df</i>	170			

a separate ANOVA was conducted using level of aggression as a covariate (in addition to the covariate of age). When the level of aggression was controlled, the effect of participant on acceptability was no longer significant, $F(1, 170) = 1.32$, $p = .253$, $\eta^2 = .008$. That is, with differences in the average perceived level of aggression held constant, men and women did not differ in how acceptable they judged the act to be.

The Aggressive Act

Table IV shows the means and standard deviations relevant to all the main effects of act. There were main effects of act on level of aggression, $F(1, 170) = 17.19$, $p < .001$, $\eta^2 = .100$; causal attribution, $F(1, 170) = 5.23$, $p = .024$, $\eta^2 = .033$; and acceptability, $F(1, 170) = 5.45$, $p = .021$, $\eta^2 = .034$. Bumping into another person was seen as more aggressive, more a product of a personal disposition, and less acceptable than shouting at the person. There were no significant interactions between act and aggressor, target, or participant.

Predictions Made by the Participants

There were main effects of aggressor on the variables “assertive to most women,” $F(1, 170) = 11.15$, $p = .001$, $\eta^2 = .067$, and “assertive to most men,” $F(1, 170) = 21.84$, $p < .001$, $\eta^2 = .124$. As Table I shows, participants—both men and women—estimated that women would be more likely to agree the act was assertive (rather than aggressive) when the actor was a woman, and men would be more likely to agree that the act was assertive when the actor was a man. A similar pattern occurred in the participants’ predictions of acceptability. There were main effects of aggressor on the variable “how acceptable to most women,” $F(1, 170) = 16.61$, $p < .001$, $\eta^2 = .097$, and “how acceptable to most men,” $F(1, 170) = 17.09$, $p < .001$, $\eta^2 = .100$. Participants guessed that women would find the act more acceptable when the aggressor was a woman and men would find the act more acceptable when the aggressor was a man (see Table I).

Testing the Participants’ Predictions

The predictions made by the participants were treated as hypotheses and tested against the present data set. Participants as a group predicted that people would be more likely to label an act as assertive rather than aggressive when it was perpetrated by a same-gender actor. If this were accurate, it would follow that people would rate acts by members of their own gender as less aggressive. There was, however, no statistically significant Aggressor × Participant interaction for level of aggression, $F(1, 170) = 0.06$, $p = .812$, $\eta^2 < .001$. Participants also predicted that people would see an act as more acceptable when the actor was of the same gender. However, there was no statistically significant Aggressor × Participant interaction for acceptability, $F(1, 170) = 1.09$, $p = .299$, $\eta^2 = .007$. Thus, contrary to the participants’ predictions, male and female participants did not report different levels of aggression or acceptability for acts by same-gender aggressors versus other-gender aggressors.

DISCUSSION

The results show a mixture of consistency and inconsistency with the hypotheses of this study and with earlier research. Contrary to prediction, there

were no significant differences in the perceived levels of aggression or in the attributions made for the aggressive act, depending on the gender of the aggressor or target. This was the case both for physical and for verbal aggression. This result may indicate that the participants did not hold strong traditional stereotypes, and it raises the possibility that gender stereotypes are weaker and less widespread in western societies than they were in the past. Other hypotheses of this study were supported. For example, participants viewed women's aggression as more acceptable than aggression perpetrated by a man. The results also revealed several gender differences in the perception and evaluation of aggression. Consistent with earlier research, men saw less aggression than women did and, without controlling for this difference, they rated the aggression as more acceptable. When the level of aggression was held constant, however, men and women did not differ in how acceptable they considered the aggression to be. This suggests that men's tendency to find aggression more acceptable is a consequence of the fact that they see less aggression than women do in the same act. Finally, participants as a group appeared to predict same-gender favoritism from both men and women. However, there was no actual evidence of the predicted favoritism. This suggests that people may overestimate the average level of gender bias.

Gender of Aggressor and Target

One of the major hypotheses of this study—participants would perceive a greater level of aggression in an act when the actor was a man—was not supported. This result can be contrasted with prior work that suggested that more aggression is attributed to men than to women (de Meijer, 1991; Harris & Knight-Bohnhoff, 1996; Herzberger & Tennen, 1985; Howe et al., 1988). The results of this study may simply show that this tendency is not as strong or as widely generalizable as the earlier work considered alone might suggest. The participants in this study were older on average than those involved in earlier studies, and traditional gender stereotypes may be less common among older people.

On the other hand, it is worth considering the possibility that this study's result is more accurate and widely generalizable than are the sporadic earlier positive findings. In other words, gender stereotypes may tend *not* to influence people's perception of the levels or causes of aggression, and the hypothesized

results may not be found in most populations other than by chance. This might reveal an important difference between gender stereotypes and racial stereotypes—namely, that stereotypes of the genders may not be as strong or influential as racial-group stereotypes. This would explain why the race of an aggressor can influence the perception of an act of aggression (see, e.g., Duncan, 1976), but the *gender* of an aggressor does not.

Another possibility is that traditional stereotypes of the genders are no longer widely held in western societies because of cultural influences such as the women's movement. The popular idea that traditional gender stereotypes are prevalent and influential was no doubt accurate in the past. However, although the prevalence of these stereotypes has been changing, people's *beliefs* about the stereotypes' prevalence may not have been keeping pace with this change. The current beliefs concerning the prevalence of the traditional gender stereotypes may better represent the world as it was several decades ago than as it is today. There are still people in western societies who hold strong traditional views of the genders. Increasingly, however, they may be a minority.

Although the gender of the aggressor did not influence the perceived levels of aggression or the causal attributions made for the aggressive act, the aggressor's gender did influence participants' *evaluations* of the aggression. Consistent with earlier research, participants in this study rated the aggressive act as less acceptable when the aggressor was a man than when the aggressor was a woman. What might account for the lesser acceptability of men's aggression? One explanation for this finding is the widespread (and generally well-founded) belief that aggression by women is less harmful than aggression by men (Harris, 1991). Men are in general physically stronger and thus potentially capable of doing more damage than are women. Consequently, an act of men's aggression may be more threatening than an identical act by a woman, just as waving a gun at someone would be more threatening than waving a fist, even if the waving motion were identical. Another possible explanation concerns the motivations inferred to underlie aggression. Some research suggests that people tend to view women's aggression as more expressive, whereas men's aggression is more likely to be viewed as instrumental (Campbell, Muncer, McManus, & Woodhouse, 1999). People may rate an aggressive act seen as an honest expression of the aggressor's emotional state as more acceptable than the same act viewed as a means of obtaining some goal.

As for the influence of the *target* of aggression on participants' attributions, results of an earlier study suggested that people attribute more blame for an incident of domestic violence to the target when the target is a man (Harris & Cook, 1994). In this study, which was set outside the context of domestic violence, this result was not replicated. This could indicate that the result obtained in the domestic violence context was the product of specific stereotypes of the types of people involved in domestic violence rather than the product of broad stereotypes of men and women in general.

Gender Differences

A number of differences were found between male and female participants in terms of how they perceived and evaluated the aggression depicted in the vignette. One difference concerned participants' judgments of the acceptability of the act. Without statistically controlling for the gender differences in the perceived level of aggression, men rated the acts more acceptable than did women. When the perceived levels of aggression were held constant, however, this difference disappeared. This finding suggests when men and women perceive the same level of aggressiveness in a given act, they do not differ in how acceptable they consider it to be. Because men tend to see less aggression than women do in the same act, however, they are likely to rate the act as more acceptable. This finding adds to and clarifies earlier research. Previous researchers have indicated that men tend to rate an aggressive act as more acceptable than do women (Harris, 1991). However, earlier research did not reveal that this might be purely a consequence of the fact that men see less aggression than do women in the same act. This result may shed light on the causes of gender differences in aggressive behavior. The fact that men see the same act as less aggressive than do women might, because it leads men to view the same act as more acceptable, be one of the factors that contribute to the greater incidence of aggressive behavior among men.

Predictions Made by the Participants

A previously unexplored area investigated in this study concerned participants' expectations about how women and men in general would perceive and evaluate aggression. The results suggest that the

participants' expectations were not always accurate. As a group, the participants predicted that people of both genders would be biased in favor of aggressors of their own gender. This pattern was evident across two dependent variables, which makes it unlikely that it was merely a chance finding. Participants estimated that most people would consider an act of aggression by a same-gender actor more acceptable than an act of aggression by a member of the other gender. Similarly, participants estimated that people would be more likely to avoid labeling an act aggressive and use the less pejorative label assertive when the actor was of the same gender. The data did not support the participants' predictions. Participants' ratings of the level and acceptability of the aggression did not vary depending on whether or not the actor was the same gender as they. Participants of both genders saw the act as equally aggressive, regardless of the gender of the aggressor, and saw women's aggression as more acceptable.

One interpretation of these findings is that there are widespread but inaccurate beliefs about how biased men and women are toward their own gender and against the other gender. Such beliefs are not completely erroneous; there is some literature to support the existence of in-group and out-group biases on the basis of gender (e.g., Beauvais & Spence, 1987; Olsen & Willemsen, 1978). People may, however, tend to *exaggerate* how strong or common these gender biases are, or at least how strong they are in modern western societies. In support of this general position, there is research to suggest that women sometimes believe that men hold much more negative and sexist attitudes toward them than men actually report (Edmonds et al., 1991). The idea that people hold exaggerated views about the extent of gender bias is consistent with the idea that people hold exaggerated views about how common traditional gender stereotypes are in modern western societies.

Implications

The results of this research have various implications. In a number of ways, the gender of the perpetrator, target, and observer of aggression influences the perception and evaluation of that aggression. This could have important consequences in any situation in which people make important judgments concerning aggression. One such situation would be a court of law (Harris & Cook, 1994). For instance, the fact that

women's aggression is seen as more acceptable than men's aggression may influence the verdicts reached by juries in cases related to violent crime. Furthermore, if there is a tendency for people to overestimate how biased people are in favor of members of their own gender group, jury members may inappropriately view as less credible the testimony of witnesses who make favorable statements about members of their own gender or unfavorable statements about members of the other gender.

The finding that people overestimate the average level of gender bias also raises the question of whether people overestimate how biased people are toward *other* groups to which they belong or with which they identify. Although the existence of in-group and out-group biases has been convincingly demonstrated, it is possible that people have an exaggerated view of how strong these biases are (at least in people other than themselves). If so, this may have important ramifications for relations between different social groups, including different racial, ethnic, and religious groups. Fear, resentment, and conflict between groups may be fuelled in part by false or exaggerated beliefs held by the members of each group about how biased most members of other groups are against them. If this is the case, a greater understanding among the members of any group of how other groups perceive them could potentially help to defuse this fear and resentment and to ameliorate the conflict it engenders. Of course, this is not to deny that some people hold highly prejudiced attitudes toward members of other groups, nor is it to deny that this is a pressing social problem. It is merely to suggest people may exaggerate the *average* level of bias among groups of people.

As noted, men tend to see less aggressiveness in a given act than do women and consequently view aggression as more acceptable. This greater acceptance of aggression may be one of the reasons that men engage in more physical aggression than women do. These considerations suggest fruitful directions to explore in devising psychosocial interventions to reduce aggression. If aggressive people (of either gender) came to perceive aggression as more intense and harmful than they do currently, they may as a result view it as less acceptable. This in turn may decrease the likelihood that they will engage in aggression. Thus, a strategy for reducing aggressive behavior would be to augment the level of aggression people see in an aggressive act. This could be accomplished, for instance, by making people more aware of the potentially harmful consequences of aggression.

Limitations

This study had a number of limitations. First, as researchers too often have to point out, the sample was predominantly White, and therefore it is unclear how far the results of this study can be generalized to members of other ethnic groups or cultures. There were also limitations in the measurement strategy used in this experiment. Four of the dependent variables were based on single items in the questionnaire. This opens up the possibility that extraneous factors, such as the wording of these items, may have influenced participants' responses. Finally, although the data analysis revealed various statistically significant effects, the sizes of these effects were generally small. Of the significant results, all but one accounted for less than 10% of the variance in the data, and most accounted for less than 5%. Thus, these differences, though statistically significant, may have relatively little *practical* significance, and therefore should be interpreted with caution.

Future Directions

The results of this study raise various questions that would be usefully pursued in the future. The issue of whether the aggressor's gender influences perceived levels of aggression has not yet been resolved, and thus further research is needed in this area. Researchers should sample from populations other than university students, as it is possible that traditional gender stereotypes are stronger and more widespread in other populations. Another matter that deserves further exploration is the question of whether people sometimes exaggerate the average level of in-group and out-group biases on the basis of gender, and on the basis of other social distinctions, such as race and ethnicity, social class, age, and nationality.

In this and earlier research, participants' perceptions of the act of aggression described in the vignette were measured immediately after the vignette was read. However, people's cognitive representations of events tend to become increasingly schematized with time (Barclay, 1986; Eldridge, Barnard, & Bekerian, 1994; Fiske & Taylor, 1991). It is thus possible that, had there been a longer gap between reading the vignette and filling out the questionnaire, the predicted results would have been found. This is an important topic for future research. Judging by the research to date, the effect of gender stereotypes on the perception of aggression does not appear to be particularly

strong, assuming, that is, that there is any effect at all. If after days, weeks, or months the effect becomes notably stronger, however, the real-world consequences may be more dramatic than the earlier research would suggest. An example of an area in which these real-world consequences might be important is eyewitness testimony in court, in which many months may pass between the initial event and the giving of testimony concerning this event.

CONCLUSION

One of the main questions this study was designed to answer was whether gender stereotypes lead people to see a greater level of aggression in an ambiguous act by a man than by a woman. This question remains unanswered. Results of some earlier research suggest that this effect can occur, but the present study did not confirm this. This raises more questions than it provides answers. Would the hypothesized results be found if there were a longer delay between reading the vignette and responding to the questionnaire? Would they be found in other populations that hold more traditional gender stereotypes? Are gender stereotypes weaker and less influential than stereotypes associated with different races? Are gender stereotypes now much less widespread in western society than is commonly believed?

Although these issues remain unsettled, in other areas support was found for the view that the gender of the aggressor, target, and observer influences the perception and evaluation of aggression. The results bolster several tentative conclusions. First, people tend to find aggression more acceptable when the aggressor is a woman rather than a man. This finding may have important implications, as differences in the way people evaluate aggression could potentially have repercussions in situations such as the jury trials of people accused of violent crime. Other findings shed light on the reasons men tend to be more aggressive than women. A relatively robust finding is that, on average, men view aggression as more acceptable than do women. The results of this study suggest that this is a consequence of the fact that men perceive the same act as less aggressive than do women. Finally, the results of this study may have implications for the social psychological literature on in-groups and out-groups. In-group and out-group biases based on gender and other social distinctions have been clearly shown to exist. Rather than this being an insight that social psychology can contribute to a world unaware

of these biases, however, it may be that people in fact tend to overestimate just how widespread these biases are.

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