

Reference Points in Men's and Women's Judgments of Progress Toward Gender Equality

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Abstract Men rate progress toward gender equality more favorably than do women. Across two studies with U.S. undergraduate samples, we explore whether this difference in perceived progress stems from a gender difference in chosen reference points. Using ANOVA and regression, we demonstrate that men ($n=33$) assess progress relative to the past more than to the goal of full equality. In contrast, women ($n=46$) assess progress relative to full equality as much as to the past. As a result, current progress seems more substantial to men than to women. Experimental manipulation of reference points led men ($n=60$) and women ($n=60$) to adopt the same reference point and, consequently, to offer similar assessments of progress.

Keywords Reference points · Framing · Social judgment · Gender progress · Equality

Introduction

The history of progress toward gender equality in the United States has been a mixture of dramatic gains, important setbacks, and persistent falling short of full equality (Blau et al. 2006; Valian 1998). Given this imperfect history of progress, there seems to be much room for disagreement when people evaluate the level of

overall progress toward gender equality. Indeed, nationally representative opinion surveys in the United States find that Americans often disagree when rating gender progress and, in particular, men tend to report seeing more progress toward gender equality than women report seeing (Kluegel and Smith 1986). Across two studies, the current investigation explores a novel approach to understanding this gender difference in assessments of progress. In order to judge progress toward a goal such as gender equality, a person needs to compare the present to some reference point, which is usually either some moment in the past or some representation of the end goal. Importantly, the reference point that is chosen as a comparison standard can profoundly affect assessments of progress toward that goal (Eibach and Ehrlinger 2006). Relative to conditions of inequality decades ago, for example, there has been substantial progress toward gender equality. Relative to the end goal of full gender equality, however, progress toward equality has been inadequate. We argue that men and women differ in their assessments of progress because the goal of full gender equality is represented differently for men than for women in a way that influences its salience and the likelihood that it will be used as a comparison standard for assessing progress. We test this argument in Study 1 by asking men and women to assess progress toward gender equality and to report the reference points they used to make that assessment. In Study 2 we experimentally manipulated the reference points men and women used as comparison standards for judging progress in order to test the causal influence of reference points on men's and women's judgments of gender progress.

This explanation of gender differences in judgments of progress toward equality is based on the constructivist approach to social judgment which suggests that judgments of a social object or event require a comparison between

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that object or event and some relevant standard (Asch 1940; Schwarz and Bless 1992). Often more than one standard is possible. For example, a person could compare the value of a salary offer to the salary necessary for her to avoid the need for public assistance, to the average salary attained by others with her qualifications, or to a particularly high salary that a colleague has attained. The comparison standard that is used for a given judgment can have a profound effect on the outcome of that judgment. The same social object or event can often look favorable when compared to one standard but decidedly unfavorable when compared to another. The comparison standard used to make judgments tends to be based on what is most cognitively accessible, be that because of the immediate situation, recent events, or qualities of the individual making the judgment.

We propose that the chronically accessible standards that men use to judge gender progress differ from the chronically accessible standards that women use and, consequently, men's and women's overall judgments of gender progress tend to diverge. The primary goal of this investigation is to illuminate why men and women differ in their assessments of progress toward equality. However, an implication of this hypothesis is that men and women might be contextually influenced to adopt a common standard to judge gender progress and, if so, their judgments should converge. We test this prediction directly in our second study by manipulating the salience of potential comparison standards for judging progress toward gender equality. If men's and women's perspectives on gender progress are bridgeable when they are focused on the same comparison standard, this constructivist approach suggests reason to be optimistic about the possibility of finding common ground on questions of gender inequality.

Perceptions of Progress Toward Gender Equality in the Workplace

Any analysis of progress toward gender equality must first specify the domain of equality under consideration. We chose to focus on gender equality in the workplace for several reasons. First, as with progress toward gender equality in general, there has been a mixed history of success in improving gender equality in the workplace (Blau et al. 2006; Valian 1998). For example, the 1963 Equal Pay Act established the principle that men and women should receive equal pay for equal work (Skrentny 2002) and the gap in men's and women's wages narrowed substantially in the 1980s and early 1990s in the U.S. (Blau and Kahn 2006). However, since then, progress in narrowing the gap has slowed considerably (Blau and Kahn 2006) and the gap between highly educated men and

women has actually grown (Dey and Hill 2007; Lips 2003).

There is also evidence that men's and women's assessments of progress in the workplace diverge somewhat more than their assessments of progress in other domains. A June 2000 Wall Street Journal poll asked respondents to judge progress for women over the past 20 years at work, at home, in the marketplace, and in media portrayals (cited in Bostrom 2000). Forty-nine percent of men saw a lot of progress for women at work, compared to only 36% of women. This divergence between men's and women's assessments of progress is only somewhat larger than the comparable divergence for equality in media portrayals and the marketplace but substantially larger than that in assessments of progress in the home. Thirty-five percent of men saw a lot of progress in media portrayals of women, compared to 26% of women. Forty-four percent of men saw a lot of progress in how women were treated as customers, compared to 33% of women. Finally, men and women agreed most in their judgments of women's progress at home, with 33% of men and 30% of women agreeing that there had been a lot of real progress.

American men's and women's perceptions of gender progress diverge even when they are questioned about something more specific, such as progress narrowing the gender gap in wages. For example, the 1998/1999 Multi-investigator Study (Sniderman et al. 1999), asked about progress narrowing the wage gap between men and women over the previous decade in the United States. Seventy-five percent of male respondents compared to 63% of female respondents judged that the wage gap had decreased "somewhat" or "a lot," 13% of male respondents and 16% of female respondents judged that the wage gap had remained the same, and 12% of male respondents compared to 21% of female respondents judged that the wage gap had increased "somewhat" or "a lot."

The differences in men's and women's judgments of progress toward gender equality could be due to multiple underlying causes. One plausible reason that men's assessments of progress toward equality might be more favorable than women's assessments has to do with gender differences in the availability of evidence for inequality. Women might experience discrimination first-hand in a way that men do not and, as such, be more aware of persisting inequalities. We do not address how this factor might influence perceptions of progress in the current investigation. Instead, we suggest a less intuitive, yet potentially equally powerful cause of the tendency for men to judge progress toward gender equality more favorably than women do. Specifically, we suggest that men and women might adopt different reference points when evaluating progress toward equality.

A Reference Point Model to Explain Group Differences in Perceptions of Progress Toward Equality

Applying the constructivist approach to perceptions of progress would suggest that judgments of progress toward a goal requires a comparison between conditions in the present and some reference point, such as a starting point in the past or a representation of the end goal. In the case of progress toward gender equality the reference point that is chosen to evaluate progress will be a critical determinant of the favorability of those evaluations. Jackson (2006) explains how reference points can affect judgments of gender progress, writing,

Compared to the restrictions that faced women two centuries ago, the degree to which gender inequality has declined seems remarkable. When weighed against an imagined state of full and unimpeded equality, the continued shortcomings in women's status seem inexplicable and remarkably frustrating. These visions are complementary, not inconsistent. The degree of current gender inequality can only be assessed by means of comparison, to the past or to an imagined future. Therefore, before asking if, how, or to what degree the significance of gender inequality will continue to decline, we need to choose a perspective from which we will make our assessments. (p. 216).

We hypothesize that men and women differ in their judgments of progress toward gender equality because they choose different perspectives from which to make those judgments. Specifically, men tend to judge gender progress by comparing present conditions to the past while women tend to judge gender progress by comparing present conditions to a future ideal of full equality.

We argue that there are at least two reasons that men and women might use different reference points to judge progress toward equality. First, a gender difference in the reference point chosen to assess progress toward gender equality might stem from an influence of group dominance motives (Sidanius and Pratto 1999). In a society that values fairness and equality, the open acknowledgement of group inequalities, such as the persisting inequalities between men and women, threatens to delegitimize power arrangements that unfairly advantage dominant groups at the expense of subordinate groups (Sidanius and Pratto 1999; Kahn et al. 2009). In order to defend the moral legitimacy of present-day conditions that advantage their group, members of dominant groups (e.g., men) should be motivated to judge present-day conditions against the more unequal standards of the past. Members of dominant groups should be attracted to making these palliative comparisons because their group's present-day advantages seem more legitimate

compared to the inequalities of the past. By contrast, members of subordinate groups (e.g., women) should be motivated to judge present-day conditions against the ideal of full equality because this comparison highlights how present-day conditions fall short of the ideal of full equality and thus challenges the moral legitimacy of the existing power arrangements that continue to disadvantage women.

A second reason that American men and women may tend to focus on different reference points when evaluating progress toward gender equality stems from differences in what the goal of gender equality may mean to men and women. Specifically, women may tend to view gender equality as being necessary for their long-term well-being because their opportunities in life are constrained by gender inequalities. By contrast men may tend to view gender equality less as a necessity and more as an optional goal. Research comparing people's assessments of progress when they pursue goals that they consider necessary (e.g., financial security) versus goals that they consider optional (e.g., financing a life's dream) shows that people evaluate outcomes differently when they pursue each type of goal (Brodscholl 2006). Specifically, when people pursue necessary goals they are vigilant for discrepancies between the outcome and their end goal. By contrast when people pursue optional goals they tend to focus on the discrepancy between the outcome and their starting point. If gender equality represents more of a necessary goal for women than it does for men, then women should focus on the end goal of full equality when judging gender progress whereas men should focus on conditions of the past when judging gender progress.

The idea that men and women differ in assessments of progress toward gender equality because they use different reference points to make those judgments fits with research on a similar pattern of divergence in White and ethnic minority Americans' judgments of progress toward racial equality. Just as American men rate progress toward gender equality more favorably than American women do, so do White Americans rate progress toward racial equality more favorably than ethnic minority Americans do (Brodish et al. 2008; Eibach and Ehrlinger 2006; Eibach and Keegan 2006; Eibach and Purdie-Vaughns 2009; Kluegel and Smith 1986). Moreover, evidence suggests that this divergence in White and ethnic minority Americans' judgments of racial progress is partly explained by the different reference points each group uses to assess progress (Brodish et al. 2008; Eibach and Ehrlinger 2006). When judging racial progress White Americans tend to focus on comparisons between the present and the past while ethnic minority Americans tend to focus on comparing the present to the ideal of full racial equality. This difference in chosen reference points explains why White Americans tend to have more favorable impressions of racial progress than ethnic minority Amer-

icans do because progress looks more favorable when compared to the past than when compared to the end goal of full equality.

It is important to empirically test whether the same reference point model that explains group differences in perceptions of racial progress can also explain differences in men's and women's perceptions of gender progress because racial and gender inequality differ in important ways and we cannot just assume that a model that was originally developed to explain differences in White and ethnic minority Americans' perceptions of racial progress will also explain differences in men's and women's perceptions of gender progress. For example, while racial stratification involves spatial segregation, with White and ethnic minority Americans living apart from each other in different neighborhoods, attending different schools, and socializing in different networks, gender stratification involves spatial integration, with many men and women cohabitating in the same homes and sharing overlapping social networks (Jackman 1994; Massey 2007; Tilly 1998). The separateness of White and ethnic minority Americans' lives likely gives each group access to different information relevant to forming impressions of racial progress. By contrast, the interconnectedness of American men's and women's lives likely leads to more shared information relevant to forming impressions of gender progress. There are also many important differences between the Women's Rights and Civil Rights movements that may be relevant for judging gender progress and racial progress respectively. These movements have followed different trajectories, with different movement dynamics, different patterns of triumphs and setbacks, and different cultural salience of their historical achievements (e.g., Mansbridge 1986, McAdam 1995, 1999; Skrentny 2002; Taylor 1989). Recent research suggests that the salience of historical achievements in particular may influence judgments of progress toward equality (Kaiser et al. 2009). Thus, differences in the salience of historical achievements associated with the Women's Rights movement and the Civil Rights movement could influence how people judge gender progress and racial progress in ways that make judgments in each of these domains less comparable.

Given that gender inequality differs from racial inequality in important ways that may be relevant to judging progress, it is not a forgone conclusion that the same reference point model that accounts for differences in perceptions of racial progress will also explain differences in perceptions of gender progress. However, if empirical tests show that the same reference point model does indeed apply to such different systems of inequality, then it would suggest that this model is quite general in its implications and is not tied to unique features of America's system of racial stratification.

The Present Investigation

We designed two experiments to explore whether men offer more optimistic assessments of progress toward gender equality than do women because of a gender difference in the reference points adopted to assess progress. In each study, we asked male and female participants to assess progress toward equality. We also explored the relationship between reference point selection and assessments of gender progress by asking participants about the degree to which they relied on particular reference points (Study 1) and by manipulating which reference point was most salient (Study 2).

In both studies, we explored how the use of different reference points might influence assessments of progress toward gender equality in samples of undergraduate students at a public southeastern University (Study 1) and a private northeastern University (Study 2). We explored this phenomenon with undergraduate samples, in part, because they represent a sample of convenience. The logic that led us to predict that men, generally, might rely more on a past reference point for judging progress toward equality than women, generally, leads us to make the same prediction for undergraduate men and women, specifically. That said, we suspect that undergraduates might also make an ideal sample in which to explore how the selection of different reference points influences assessments of progress toward gender equality because, typically, samples of undergraduates are younger than nationally representative samples.

As discussed above, gender differences in perceptions of gender progress are likely multiply caused. Because there has been progress toward gender equality over time, younger women might be less likely than women who are older to have had substantial direct experience with gender discrimination. Consequently, a gender difference in assessments of progress toward gender equality in an undergraduate sample might be less influenced by factors such as gender differences in experience. Using a younger sample thus offers us an opportunity to isolate and better understand the role of reference points in assessing levels of progress in a way that might be more complicated in a sample of older participants.

Study 1

While past opinion polls show a reliable difference in men's and women's perceptions of progress toward gender equality, these polls do not offer insight into the factors that respondents consider when making these evaluations. Study 1 was designed to explore whether, as predicted, women more often judge progress toward gender equality

in comparison to the end goal of full equality while men more often judge progress in comparison to past conditions. We asked male and female participants to offer assessments of progress toward gender equality and to rate the degree to which they compared current conditions to both the end goal of gender equality and to past conditions.

We predicted that women would offer less positive assessments of progress toward equality than would men (Hypothesis 1). We expected that both women and men might cite both the end goal of equality and past conditions as reference points. However, we predicted that women would be more likely than men to report comparing current conditions to the end goal of full gender equality and that men would report comparing current conditions to past conditions more than they would report comparing current conditions to the end goal of full equality (Hypothesis 2). Finally, we predicted that this gender difference in the reference points selected as comparison standards would mediate the gender difference in perceptions of progress toward gender equality (Hypothesis 3).

Method

Participants

Seventy-nine undergraduates at a large, public, southeastern U.S. university (58.2% female) completed the study as part of a larger study in exchange for experimental credit applied to their psychology courses. The sample was recruited from students enrolled in Psychology courses. The sample was 68.4% Caucasian, 12.7% Black, 10.1% Hispanic, and 5.1% Asian. An additional 3.9% of participants did not provide information about their ethnicity.

Procedure

Participants were recruited for an experiment described as one studying “social trends.” Upon arrival in the laboratory, participants were met by a trained undergraduate experimenter who explained what tasks they would be asked to complete and explained that participants’ responses would remain confidential and anonymous and that they could discontinue their participation at any time. They signed a consent form and then completed the experimental questionnaire as part of a larger set of questionnaire-based measures of their beliefs. The experiment was completed on the computer, minimizing the potential impact of the experimenter on responses. However, an experimenter remained just outside of the laboratory room in case participants had any questions.

Within the experimental questionnaire, participants were asked to offer an assessment of the amount of progress made toward gender equality “in terms of wages and opportunities

for career advancement in the United States” on a scale from 0 (*no real progress*) to 7 (*a great deal of progress*). This single-item measure of perceived progress toward equality was based upon a similar measure used successfully to measure assessments of racial progress in past research (Eibach and Ehrlinger 2006; Eibach and Keegan 2006). Next, participants read a brief statement explaining that there are multiple ways in which one might make a judgment about progress toward equality but people sometimes evaluate current levels of progress through comparisons with past conditions or with the end goal of full gender equality. Participants were asked to reflect upon the factors they considered when offering the earlier assessment of progress toward equality. They were asked to rate the degree to which they thought about how current levels of gender equality compared to gender equality in the past on a scale from 0 (*not at all*) to 7 (*it was the main thing I considered*). Separately, participants rated the degree to which they thought about how current levels of gender equality compared to the goal of true gender equality, using an identical 0–7 scale. After completion of this and companion questionnaires unrelated to the current investigation, participants were fully debriefed before leaving the laboratory.

Results

Although we had no prediction regarding interactions between participant ethnicity and gender, we wanted to explore whether our assumption that ethnicity would not influence results was supported. Sixty-eight percent of our sample was Caucasian, leaving insufficient power to explore how ethnic minority samples might differ from each other. Instead, we classified participants as either Caucasian or Ethnic Minority and entered this variable as a factor in data analyses.

Hypothesis 1

We conducted a 2 (*male vs. female*) \times 2 (*Caucasian vs. Ethnic minority*) ANOVA to explore the influence of gender and ethnicity on assessments of progress toward gender equality in wages and opportunities for career advancement. As predicted, this ANOVA revealed a main effect of gender, indicating that women offered less positive evaluations of progress toward gender equality ($M=5.28$, $SD=1.10$) than did men ($M=5.85$, $SD=1.28$), $F(1,75)=4.48$, $p<.05$, $\eta_p^2=.06$. This analysis also supported our expectation that the phenomenon would be unrelated to participant ethnicity. There was not a significant main effect of ethnicity on assessments of progress toward gender equality, $F<1$. The interaction between ethnicity and gender on assessments of progress was also not significant, $F<1$.

Hypothesis 2

Next, we conducted a 2 (gender: *male* vs. *female*) \times 2 (ethnicity: *Caucasian* vs. *Ethnic minority*) \times 2 (reference point considered: *end goal* vs. *past*) repeated-measures ANOVA to explore whether men and women differed in the degree to which they reported comparing current conditions to past conditions and to the end goal of full equality. As predicted, this analysis revealed a significant gender by reference point interaction, $F(1,75)=13.55$, $p<.001$, $\eta_p^2 = .15$. Again, there was no main effect of ethnicity on participants' reported reference points, $F<1$, nor was there a significant interaction between ethnicity and gender on reported reference points, $F(1,75)=2.10$, $p=.15$, $\eta_p^2 = .03$. Post hoc analyses revealed that men offered significantly lower ratings ($M=3.96$, $SD=1.43$) of the degree to which they used the goal of full gender equality as a reference point for judging progress than did women ($M=5.34$, $SD=1.50$), $F(1,77)=14.60$, $p<.001$, $\eta_p^2 = .16$. Men ($M=5.88$, $SD=1.49$) and women ($M=5.39$, $SD=1.19$) did not differ in the degree to which they reported using levels of equality in the past as a reference point for judging progress, $F(1,75)=2.33$, $p=.13$, $\eta_p^2 = .03$. Comparing within gender, men's ratings indicated a tendency to compare current conditions to the past more than to the end goal, $F(1,31)=31.36$, $p<.001$, $\eta_p^2 = .50$, while women's ratings indicated equal consideration of the two reference points, $F<1$.

We computed a difference score between participants' ratings of the degree to which they considered past conditions and their ratings of the degree to which they considered the end goal to create a single composite measure of the degree to which participants consulted past conditions more than the end goal as a reference point. As predicted, a 2 (*male* vs. *female*) \times 2 (*Caucasian* vs. *Ethnic minority*) ANOVA exploring gender differences in this composite measure revealed that men relied on the past over the end goal as a reference point for judging progress more than women did, $F(1,75)=12.89$, $p<.001$, $\eta_p^2 = .15$.

Hypothesis 3

Lastly, we conducted a series of regression analyses to explore whether the observed gender difference in perceptions of progress was mediated by a tendency for men and women to differ in the reference points used to make that judgment. Following Baron and Kenny's (1986) steps to test for mediation, we conducted a regression predicting assessments of progress from gender and ethnicity. This analysis confirmed that women offered less favorable assessments of progress toward equality than men, $\beta=-.25$, $t(76)=-2.24$, $p<.05$. A parallel regression confirmed that men relied on the past over the end goal as a reference point for judging progress more

than women did, $\beta=-.36$, $t(76)=-3.34$, $p<.001$. Also, as predicted, a final regression revealed that reliance on the past over the end goal as a reference point for judging progress predicted lower assessments of progress when controlling for gender, $\beta=.32$, $t(75)=2.79$, $p<.01$. This regression also revealed that gender failed to predict assessments of progress toward equality once the effect of relying on the past over the end goal as a reference point was controlled, $\beta=-.14$, $t(75)=-1.20$, $p=.24$. A Sobel test confirmed that including this mediator in the regression led to a significant reduction in the effect of gender on assessments of progress, $z=2.14$, $p<.05$.

We have argued that a gender difference in perceptions of progress stems from tendencies to rely on a particular reference point (e.g., past or end goal) over the alternative reference point. However, one might wonder whether one reference point is driving the effect more than the other. To explore this possibility, we conducted parallel sets of mediational analyses exploring whether the use of gender equality in the past or, separately, use of the end goal as a reference point mediates the observed gender difference in assessments of progress. A regression predicting reported use of the past reference point from gender and ethnicity confirmed that men and women did not differ significantly in the degree to which they evaluated progress by considering past conditions, $\beta= -.15$, $t(75)= -1.35$, $p=.18$. As such, reliance upon this reference point alone does not mediate the gender difference in assessments of progress toward equality. A regression predicting reported use of the end goal as a reference point from gender and ethnicity revealed that women used the end goal as a reference point more than men, $\beta=.39$, $t(75)=3.55$, $p<.001$. However, a regression predicting assessments of progress from gender, ethnicity, and use of the end goal as a reference point revealed that reported use of the end goal did not predict assessments of progress when controlling for gender, $\beta=-.04$, $t(75)=-.35$, $p=.73$. Therefore, the effect of gender on selection of reference points mediates differences in men's and women's assessments of progress toward equality only when looking at participants' relative use of these two reference points.

Discussion

Undergraduate participants in Study 1 replicated a pattern seen in large, nationally representative surveys whereby men offer more favorable assessments of progress toward gender equality than do women. We argue that one reason for this gender difference in assessments of progress is that men and women might compare current conditions to different reference points when judging progress. Specifically, we predicted that men would compare current conditions to past conditions more than to the end goal of

full equality while women would be more likely than men to compare current conditions to the end goal. When asked to describe the degree to which they considered each potential reference point when assessing progress toward equality, participants in Study 1 confirmed these hypotheses. Furthermore, mediational analyses revealed that the gender difference in the tendency to rely on the past over the end goal as a reference point for judging progress toward equality mediated the tendency of men to offer more favorable assessments of progress than women. Study 2 was designed to explore the effect of chosen reference points on assessments of progress more systematically. To this end, we asked male and female participants to evaluate progress toward gender equality after assigning them to conditions in which either past states of gender inequality or the end goal of full equality was experimentally made more salient.

Study 2

Study 2 was designed to experimentally manipulate the relative accessibility of the past versus the end goal as reference points for judging gender progress. We manipulated reference point accessibility by varying the content of a question that preceded the question eliciting participants' ratings of the magnitude of gender progress. Previous research on survey order effects has established that the content of preceding questions can influence interpretations of subsequent questions (Schwarz 1996). We used this well-established phenomenon to prompt participants to use different reference points to judge progress toward gender equality. In one condition we made the past a salient reference point for judging progress by asking in the preceding question whether participants agreed that women were better off in the present than they were in the past before we asked participants to rate the magnitude of gender progress. In another condition we made the end goal of full equality a salient reference point by asking in the preceding question whether participants agreed that full equality had not yet been achieved before we asked participants to rate the magnitude of gender progress. In a control condition we asked participants to rate the magnitude of gender progress without a preceding question to establish a salient reference point.

If the gap in men's and women's ratings of gender progress stems from their use of different reference points to assess progress then we would expect participant gender to interact with reference point condition to predict ratings of the magnitude of progress toward gender equality. Specifically, we expect men's and women's gender progress ratings to differ in the usual way when no reference point is made salient in the control condition, but, when the

preceding question makes either the past or the end goal a salient reference point we expect the usual gap in men's and women's gender progress ratings to be eliminated (Hypothesis 1). Because we expect that for men gender inequality in the past will be a more accessible reference point than the end goal of full equality, we predict that male participants in the control condition will offer ratings of gender progress that match the ratings provided by their peers in the past reference point condition. Because the end goal reference point condition makes salient what we argue is a less accessible reference point for men, we predict that the ratings provided by male participants in this condition will be significantly lower than those offered by their male peers in both the control and past reference point conditions (Hypothesis 2). In contrast, we expect that the end goal of gender equality is a more accessible reference point for women than for men. As a result, we expect that ratings of gender progress offered by female participants in the control condition will match the ratings offered by their female peers in the end goal reference point condition. Because we argue that women typically have both the end goal and past inequality as accessible reference points, we expect that the increased salience of past inequality in the past reference point condition will lead female participants in that condition to offer more favorable assessments of progress than their female peers in the control and end goal reference point conditions (Hypothesis 3).

Method

Participants

We recruited 120 undergraduates (50% female; $M_{age} = 19.42$ years, $SD_{age} = 1.01$) taking classes in psychology or human development at a large university in the northeastern United States. The majority of participants (61.67%) reported that they were majoring in either psychology or human development. We did not collect ethnicity information for this sample. However, the sample was recruited from a larger pool of students enrolled in Psychology and Human Development courses ($N = 336$) who were 64.6% Caucasian, 3.9% Black, 16.7% Hispanic, 7.5% Asian, and 6.7% of multiple ethnicities or of a less frequent ethnicity category. An additional 1.2% of members of this participant pool did not provide information about their ethnicity.

Procedure

All participants had signed up to take part in other studies being run in the psychology department. A trained undergraduate experimenter approached students who were seated in the waiting room lounge and asked whether they might like to hear about a quick survey that they could

complete while they waited for their appointment to begin. If the student agreed, the experimenter explained that the study was one assessing social trends and assured participants that their responses would be confidential and anonymous and that they could discontinue participation at any time. The experimenter gave them the experimental questionnaire before stepping several feet away to allow participants to complete the questionnaire privately. Participants were instructed to complete the questionnaire alone without discussing their responses with others.

Participants received one of three versions of the “Social Trends” questionnaire. Male and female participants were distributed equally across the three versions of the questionnaire (i.e., there were 20 male and 20 female participants per condition). The question that immediately preceded the main dependent measure was varied between participants to manipulate the reference points that participants would be likely to use to judge gender progress. The content of this preceding question was intentionally worded in a way that would elicit agreement from most participants. In the *control condition*, there was no preceding question. In the *past condition* participants were asked, “Do you agree or disagree that these days women are paid fairer wages and have better opportunities for career advancement than in the past?” In the *end goal condition* participants were asked, “Do you agree or disagree that we have not yet achieved the ideal of full equality between men and women in their wages and opportunities for career advancement?” In the end goal and past conditions participants recorded their answer by circling either “agree” or “disagree”.

All participants then answered a question about progress toward equality for women that constituted the main dependent measure. Participants were asked, “How much progress has there been toward equality between men and women in terms of wages and opportunities for career advancement in the United States?” Participants reported their judgments of progress on an 8-point scale that ranged from 0 (“no real progress”) to 7 (“a great deal of progress”).

Results

As expected, both male and female participants responded “yes” to the questions designed to highlight a specific reference point in the experimental conditions. In the *past condition*, 85% of men and 85% of women agreed that conditions for women were better in the present than they were in the past. In the *end goal condition*, 70% of men and 80% of women agreed that full gender equality had not yet been achieved. In both reference point priming conditions women and men did not significantly differ in their tendency to agree with the initial question, Fisher’s exact $p > .7$.

To test our hypotheses we submitted participants’ judgments of gender progress to a 2 (participant gender: male

vs. female) \times 3 (reference point condition: *control* vs. *past* vs. *end goal*) ANOVA (see Table 1). There was a significant main effect of the reference point manipulation, $F(2, 114) = 7.45$, $p < .01$, $\eta_p^2 = .12$. There was also a significant interaction between gender of participant and the reference point manipulation, $F(2, 114) = 3.15$, $p < .05$, $\eta_p^2 = .05$.

Simple effects tests revealed that the results were consistent with Hypothesis 1. Specifically, male and female participants’ judgments of gender progress differed significantly in the *control condition*, $F(1, 114) = 8.04$, $p < .01$, but male and female participants’ judgments of gender progress did not differ when they were focused on a common reference point in the *past condition*, $F < 1$, and the *end goal condition*, $F < 1$.

We conducted further simple effects tests to examine how the reference point salience manipulation affected male and female participants’ judgments of progress toward gender equality. Male participants’ judgments of progress were significantly affected by the reference point salience manipulation, $F(2, 114) = 7.31$, $p < .01$, and the condition means followed a pattern consistent with Hypothesis 2. Specifically, male participants’ judgments of progress in the *control* and *past* conditions did not significantly differ, $F < 1$. However, male participants’ judgments of progress in the *end goal condition* were significantly lower than their judgments of progress in both the *control condition*, $F(1, 114) = 12.56$, $p < .01$, and the *past condition*, $F(1, 114) = 9.07$, $p < .01$.

Female participants’ judgments of progress also were significantly affected by the manipulation, $F(2, 114) = 3.29$, $p < .05$, and the condition means followed a pattern consistent with Hypothesis 3. Specifically, female participants’ judgments of progress in the *control* and *end goal* conditions did not significantly differ, $F < 1$. However, female participants’ judgments of progress in the *past condition* were significantly greater than their judgments of progress in both the *control condition*, $F(1, 114) = 4.52$, $p < .05$, and the *end goal condition*, $F(1, 114) = 5.30$, $p < .05$.

General Discussion

Gender differences in perceptions of equality are so reliable that they can often be taken for granted, as illustrated in the sarcastic wording of a newspaper headline that read, “Surprise! Women and men differ on gender equity” (Siemaszko 1997). Rather than taking these differences for granted, we think it is critical to understand why men and women differ in their assessments of gender progress in order to better understand how to bridge these differences and possibly generate broader support for combating remaining inequality. The constructivist approach to judg-

Table 1 Male and female participants' mean judgments of progress toward gender equality as a function of reference point condition (Study 2)

	Reference point condition		
	Control	Past reference point	End goal reference point
Male participants	5.70 _a (1.13)	5.55 _a (.76)	4.70 _b (.86)
Female participants	4.90 _b (.97)	5.50 _a (.89)	4.85 _b (.67)

Participants reported their judgments of progress on an 8-point scale that ranged from 0 (*no real progress*) to 7 (*a great deal of progress*). Numbers in parentheses are standard deviations. Within rows and columns means with different subscripts are significantly different, p 's < .05. Each reference point condition included 20 male and 20 female participants

ment suggests that the differences in men's and women's judgments of gender progress can be relatively easily bridged by simply focusing men and women on a common comparison standard.

We hypothesized that men and women adopt different reference points for assessing progress toward gender equality and that this difference in reference points leads men and women to offer divergent assessments of progress. We found supportive evidence for this hypothesis in two studies. In Study 1 men reported comparing current conditions to past conditions more than to the end goal of full equality when assessing gender progress. In contrast, women reported comparing current conditions to the end goal more than men did and to the same degree as women compared current conditions to past conditions. Mediation analyses revealed that men offered more favorable evaluations of progress toward gender equality than did women precisely because men were more likely than women were to favor the past over the end goal as a reference point for judging progress.

If, as Study 1 suggests, men and women differ in their assessments of gender progress because they adopt different reference points as comparison standards, then a manipulation that leads men and women to evaluate progress relative to a common reference point should make the observed gender difference in perceptions of progress disappear. We explored this prediction in Study 2 by experimentally assigning participants to one of three conditions—one in which the end goal of equality was made salient, one in which conditions of equality in the past were made salient, and one in which no reference point was made salient. As would be expected if the gender difference in assessments of progress stems from a difference in the chosen reference point, men and women offered divergent assessments of progress only in the control condition. When a common reference point was made salient—be it the end goal of full equality or levels of inequality in the past—men and women offered virtually the same assessments of progress toward gender equality. Further evidence that a gender difference in assessments of progress stems from a difference in adopted reference points comes from

comparisons between men's and women's judgments of progress in the control condition relative to the two experimental conditions. Men's ratings of progress in the control condition were significantly higher than their ratings in the end goal condition, but did not differ from their ratings in the past reference point condition. This pattern suggests that men in the control condition evaluate gender progress in the same way as participants for whom the past reference point was experimentally made accessible. By contrast women's ratings of progress in the control condition were significantly lower than their ratings in the past reference point condition but did not differ from their ratings in the end goal condition. This pattern suggests that women in the control condition made assessments of progress in the same way as participants for whom the end goal was made accessible.

The results of Studies 1 and 2 suggest that it is not the case that men are unable to see evidence of persisting gender inequalities nor is it the case that women are unable to see evidence of progress relative to the past. Rather, it seems that when men and women are asked to evaluate gender progress they tend to use different reference points as standards of evaluation. However, when they are led to use the same reference points, there appears to be quite a bit of common ground in men's and women's perceptions of social conditions. Indeed, when the reference points that men and women use to judge progress are controlled for statistically, as in the mediation analyses of Study 1, or experimentally, as in the framing manipulations of Study 2, the difference in their ratings of gender progress vanish.

Paraphrasing Asch's constructivist point (1940), the difference in men's and women's judgments of gender progress appears to be a difference in "the object of judgment" rather than a difference in "judgment of the object." Specifically, when men and women give different answers to a question about progress toward gender equality our results suggests that this is not because they are answering the same question differently. Rather, it seems they are answering two different questions: men are assessing how different conditions are today compared to the past and women are assessing how close we have come

to the end goal of full gender equality. Because full equality is a higher standard than improvement on the past, women's ratings of progress tend to be lower than those of men. However, when men and women use the same reference point to assess progress their apparent disagreement goes away.

While the fact that we can eliminate the gender gap in perceptions of progress suggests that this gap in perceptions may be something of an illusion, the fact that men and women seem to adopt different reference points for judging progress when none is clearly provided for them suggests that the goal of gender equality may have different meaning to men and women. The goal of full equality appears to be more chronically accessible for women than it is for men given that women appear to use this goal as a comparison standard more than men when they are not prompted to do so. We suggested that men might be less inclined than women to compare current conditions to the end goal of full equality in part because this comparison highlights the inadequacy of progress toward gender equality and thus undermines the moral legitimacy of men's dominant position in the social hierarchy (Adams et al. 2006; Kahn et al. 2009). Thus, the difference in men's and women's judgments of gender progress may be a window into the psychological processes that influence the social perceptions of dominant and subordinate groups.

Previous research has documented the extensive ways that dominant and subordinate groups differ in their perspectives on social conditions (e.g., Adams et al. 2006; Brodish et al. 2008; Davis and Robinson 1991; Eibach and Ehrlinger 2006; Eibach and Keegan 2006; Eibach and Purdie-Vaughns 2009; Robinson 2008; Kahn et al. 2009; Kluegel and Smith 1986; O'Brien et al. 2009; Robinson 2008; Sidanius and Pratto 1999; Siegelman and Welch 1991). These differences in men's and women's perspectives and White and ethnic minority Americans' perspectives are so reliable and pervasive that Robinson (2008) recently described them as "perceptual segregation." The present research makes a contribution to this literature by testing a social cognitive explanation of the divergence in men's and women's judgments of progress toward equality. It is possible that other group differences in judgments of social conditions would also be better understood by using social cognitive approaches, similar to those used in the present studies, to investigate how dominant and subordinate groups construct different mental representations of social conditions and relevant comparison standards. Indeed, the patterns of American men's and women's judgments of gender progress across the reference point conditions in the present study matched the patterns of White and ethnic minority Americans' judgments of racial progress documented in previous research (Eibach and Ehrlinger 2006). This may indicate that a general process

leads socially dominant groups (i.e., White Americans, men) to construct comparisons with the past and subordinate groups (i.e., ethnic minority Americans, women) to construct comparisons with the end goal of full equality when judging societal progress. It remains to be seen whether this pattern generalizes to situations where other socially dominant and subordinate groups judge progress toward equality.

Future research could also use this approach to investigate implications for understanding group differences in support for social policies. Judgments of progress toward equality tend to predict approval of policies intended to remedy inequalities. For example, the less progress White Americans believe there has been toward racial equality the more supportive they are of affirmative action for racial minorities (Brodish et al. 2008). It is possible that judgments of progress toward gender equality would similarly predict people's attitudes toward policies designed to address gender inequality. Americans who believe that there has been little progress toward gender equality may be more willing to support government intervention to improve women's social position than those who believe that there has been more substantial progress. Future research that experimentally manipulates judgments of gender progress and racial progress could test whether these variables influence people's opinions about government intervention to remedy gender and racial inequalities respectively. The reference point salience manipulation used in the present study is one method by which progress judgments could be manipulated to assess their impact on relevant policy attitudes and behaviors.

The present studies recruited convenience samples of undergraduates at majority White North American universities. Thus, it remains to be seen whether the findings would generalize to more nationally representative samples. One reason for focusing the present studies on undergraduates is that gender differences in perceptions of social equality tend to be more pronounced among those who are highly educated (Davis and Robinson 1991; Kluegel and Smith 1986). For example, gender differences in perceptions of progress reducing the gender wage gap tend to be higher among those who have gone to college than they are among those who have not gone to college, though there is not a significant interaction between gender and education (Sniderman et al. 1999). The gender gap in perceptions of progress toward gender equality may be particularly pronounced among highly educated men and women in part because one effect of education is to increase a person's sophistication in determining what ideologies and worldviews best serve his or her group interests (Jackman 1978; Jackman and Muha 1984; Sidanius et al. 2000). Thus highly educated men and women living in a society that values fairness should be more aware that paying attention to persisting inequalities

undermines the moral legitimacy of male dominance, which harms men's group interests but helps women's group interests. Thus there are reasons to believe both that the gender gap in perceptions of progress toward equality and the reference point model that we used to explain it would apply particularly well to highly educated samples such as those we recruited in the present studies.

While the present findings might be particularly applicable to highly educated samples we hypothesize that similar, albeit potentially weaker, effects would be found in samples with less educated participants. This hypothesis should be tested in future research with participants representing a broader range of educational backgrounds. It also remains to be seen whether the differences in men's and women's uses of reference points to judge progress documented in the present study would generalize to other age and socioeconomic groups within North America and other cultural contexts where men and women may have diverging perceptions of progress toward gender equality.

Conclusion

We have seen that men's and women's judgments of the magnitude of gender progress tend to differ because they anchor their judgments on different reference points, with men tending to focus on how far we have come relative to the past and women tending to focus on how far we have left to go to achieve full equality. Both of these perspectives on progress are important and a truly balanced assessment of progress requires that we take into account both how far we have come and how far we have left to go. Recognition of the need to carefully balance both perspectives on progress was evident in Hillary Clinton's speech at the conclusion of her historic run for the Democratic Party's 2008 nomination when she remarked, "Although we weren't able to shatter that highest, hardest glass ceiling this time, thanks to you, it's got about 18 million cracks in it. And the light is shining through like never before, filling us all with hope and the sure knowledge that the path will be a little easier next time."

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