J Nonverbal Behav (2006) 30:127–140
DOI 10.1007/s10919-006-0012-4

ORIGINAL PAPER

Interpersonal Reasons for Interpersonal Perceptions: Gender-incongruent Purpose Goals and Nonverbal Judgment Accuracy

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Published online: 13 June 2006
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Abstract Women's tendency to outperform men on measures of accuracy in interpreting the meaning of nonverbal behavior might be due to such measures being more congruent with women's interpersonal goals than men's. The present study examined undergraduate men's and women's ($N = 41$) nonverbal judgment accuracy on the Interpersonal Perception Task-15 (IPT-15; Costanzo & Archer, 1993. *The interpersonal perception task-15 (IPT-15)*. Berkeley: University of California Center for Media and Independent Learning) when the *purpose* for using their judgment skills was manipulated to be either congruent or incongruent with stereotypic ''masculine'' and ''feminine'' interpersonal goals. Results showed that each gender was at a relative disadvantage in judgment accuracy in the gender-incongruent goal conditions: women were relatively less accurate when they thought the IPT-15 measured judgment skills of use to interrogators in the military, whereas men were relatively less accurate when they thought the IPT-15 measured judgment skills of use to social workers in the social services. Discussion centers on the importance of matching individuals' interpersonal goals to the purpose goals of the measure when using measures of interpersonal sensitivity.

Keywords Gender · Goals interpersonal sensitivity · Nonverbal judgment

Introduction

In everyday life, the ability to use other people's nonverbal behavior to understand how people are feeling, what they might be thinking, and the nature of their relationships with

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others is an important skill for men and women to possess (called interpersonal sensitivity). However, there is no consensus about the conditions that lead men and women to have enhanced or depressed interpersonal sensitivity (Hall, 1984). It is known that women tend to possess greater interpersonal sensitivity than men (Hall, 1984; Hall & Bernieri, 2001). Given women's tendency to be more relationship oriented (viz., have greater need for interdependence) than men (Cross & Madson, 1997), it is possible that measures of interpersonal sensitivity favor the interpersonal goals of women because the goal of such measures is to understand other people (Costanzo & Archer, 1989, 1993; Horgan, Schmid Mast, Hall, & Carter, 2004; Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979). This raises the possibility that women might outperform men on measures of interpersonal sensitivity because greater accuracy in understanding others is more congruent with the interpersonal goals of women than men (cf. Ickes, Gesn, & Graham, 2000). Thus, one condition associated with enhanced or depressed interpersonal sensitivity might be whether the goal of the measure of interpersonal sensitivity is congruent or incongruent with the gender-linked interpersonal goals of the person taking the measure. This was investigated in the present study.

There is evidence that men and women tend to approach interpersonal situations differently (Cataldi & Reardon, 1996; Cross & Madson, 1997; Helgeson & Fritz, 1998; Maccoby, 1998; Strough, Berg & Sansone, 1996; Taylor et al., 2000). Compared to men, women tend to seek greater interdependence with others, which includes being more likely to adopt the interpersonal goals of wanting to work with others and maintain harmony with other people (Cross & Madson, 1997; Smith, Morgan & Sansone, 2001; Swap & Rubin, 1983). Men, on the other hand, tend to seek greater independence or autonomy in their relationships with others than do women, which includes being more likely to adopt the interpersonal goals of being assertive and controlling. One example of this gender difference is that men appear to have more power-based motives (e.g., to gain control over others) and women more relationship-oriented motives (i.e., to maintain close relationships with others) for regulating their emotions in interpersonal situations (Timmers, Fischer, & Manstead, 1998; see also Maccoby, 1998). Relative to men, women's greater need for interdependence may be why women are, on average, more attuned to information about others and more sensitive and responsive to the needs and feelings of others than is the case with men (Cross & Madson, 1997).

A gender difference in interpersonal goals may have implications for why women tend to outperform men on measures of interpersonal sensitivity, where accuracy in recalling or interpreting others' nonverbal cues/behavior is tested (Costanzo & Archer, 1989, 1993; Graham & Ickes, 1997; Horgan et al., 2004; Rosenthal et al., 1979). These measures require men and women to recall people's appearance or to use people's nonverbal behavior in order to understand what people might be feeling or thinking or the nature of their relationship with others. Of importance, because men and women are asked to use their judgment skills only to understand others—something more akin to relationship-building in everyday life (i.e., establish greater interdependence)—and not as a means of establishing their autonomy or control over them (i.e., establish greater independence), the purpose for using one's judgment skills on these measures might be more congruent with the interpersonal goals of women than men.

Measures of interpersonal sensitivity also might serve as a cue to remind men and women that the task at hand is one in which women are ''expected'' to do better than men. People believe that women are more skilled than men at understanding the nonverbal messages of others (Briton & Hall, 1995). This belief may reflect people's awareness of actual ability differences between men and women or it might reflect different expectations

held for men and women, or both. People might expect women, who occupy more social roles that require them to be sensitive and responsive to the needs and feelings of others (e.g., social worker), to be better than men at interpreting others' nonverbal behavior (Eagly, 1987). Either way, to the extent that men and women are aware of such gender-role expectations, measures of interpersonal sensitivity might be perceived by men and women alike as more congruent with the stereotypic interpersonal goals of women; specifically, women will or should be better than men at interpreting people's nonverbal behavior.

Gender and Purpose Goals

If measures of interpersonal sensitivity are, or are perceived to be, more congruent with the interpersonal goals of women, then it is possible that men and women think the purpose for using their judgment skills on such measures (i.e., the implied ''purpose goal'' of the task) is more gender-congruent for women than men as well. Purpose goals provide individuals with a reason for working on a task and thus can be seen as one proximal influence on how they approach a task (Harackiewicz & Sansone, 1991). Although individuals may hold multiple purpose goals for a given task (Barron & Harackiewicz, 2001), contextual cues can influence what specific meaning a task has for them and thus what particular goal becomes more salient to them as they are working on a task (Sansone & Morgan, 1992; Sansone & Smith, 2000).

Classic person-environment fit theory is useful for understanding whether and how goals may interact to influence interpersonal sensitivity. This theory proposes that it is the congruency between aspects of the individual and aspects of the situation that combine to affect task experiences and task outcomes (Lewin, 1951). Specifically, greater ''goodness of fit'' or congruency between characteristics of the situation and the person maximizes the value and expectancies an individuals has for a task (Eccles, 1987; Sansone & Harackiewicz, 1996), whereas greater incongruency between the person and the situation results in less task satisfaction (Kaplan, Schaefer, & Zinkiewicz, 1994), lower intrinsic motivation (Sansone, Sachau, & Weir, 1989) and diminished task performance (Bianco, Higgins, & Klem, 2003). Smith et al. (2001), for example, asked students from a variety of majors within a university to work on a simulated city planning task in which the goal of the task was either to help ''the military decimate enemy cities'' or to help ''researchers ...develop jobs for disadvantaged others.'' Smith et al. (2001) found that students who reported wanting to work in the helping professions (e.g., social work, psychology, education) experienced higher levels of task enjoyment when the goal of the task was to ''help disadvantaged others'' as opposed to helping ''the military,'' presumably because helping people in need was more congruent with their personal career aspirations.

Because men and women tend to have different interpersonal goals, it cannot be assumed that they have the same purpose goal in mind when they are given a measure of their interpersonal sensitivity. However, men's and women's interest in the measure as well as their expected and actual performance on it might increase or decrease as a function of whether the purpose they are given for using their judgment skills on the measure is—or is perceived to be—congruent or incongruent with their respective interpersonal goals (Isaac, Sansone, & Smith, 1999; Morgan, Isaac, & Sansone, 2001). In the present research, the congruency between the purpose goals and the interpersonal goals of men and women was manipulated by linking the effective use of their nonverbal judgment skills to the job of an interrogator or a social worker, which are traditionally ''masculine'' and ''feminine'' jobs, respectively (BarHaim & Wilkes, 1989).

Study Overview

Although men and women are likely to want to use their judgment skills to understand the meaning of others' nonverbal behavior, it cannot be assumed that they do so for the same reasons. We argue that, for more women than men, the purpose may be to use their judgment skills to meet the interpersonal goal of working interdependently or harmoniously with others, whereas for more men than women, the purpose may be to use their judgment skills to meet the interpersonal goal of establishing independence or control over others. The aim of the present research was to examine men's and women's nonverbal judgment accuracy when the reason (i.e., the purpose goal) for using their judgment skills was manipulated to be congruent with either stereotypic feminine or masculine interpersonal goals. All participants were given the Interpersonal Task-15 (Costanzo & Archer, 1989, 1993), which is a measure of skill in judging the meaning of others' nonverbal behavior. Control participants were not told the name of the test, whereas participants in the experimental conditions were told that the test was developed by either the department of defense as a tool to identify those individuals who have the judgment skills necessary to work as interrogators (the masculine purpose goal condition) or by the department of social services as a tool to identify those individuals who have the judgment skills necessary to work as social workers (the feminine purpose goal condition). To the extent that men and women tend to have different interpersonal goals, men's and women's accuracy on the IPT-15 was expected to be differentially influenced by these two manipulations, with men being relatively more accurate in the masculine purpose goal condition and women being relatively more accurate in the feminine purpose goal condition.

Method

Participants

One hundred and forty-one students enrolled in an introductory psychology course at two campuses of The Ohio State University participated in the study in partial fulfillment of a course requirement (Columbus campus: 43 males, 33 females; Newark campus: 23 males, 42 females). Data from 7 participants were discarded for the following reasons: 5 due to experimenter error, 1 participant could not recall the task instructions accurately, and 1 participant marked the IPT-15 answer sheet incorrectly. All analyses were performed on the data from the remaining 134 participants. Though no formal demographic data were collected, most of the students were freshmen and Caucasian from a wide range of majors within the university. All participants were treated in accordance with APA ethical guidelines.

Materials

Manipulation Check

An ''instruction awareness check'' measure was created to assess participants' memory of their task instructions and (manipulated) purpose goals. Only one participant did not pass the manipulation check.

Pre- and Post-task Surveys

Following the experimental manipulations but prior to taking the IPT-15, participants rated how interesting they anticipated the task would be and how well they expected to do on the task. Pre-task ratings were made on a 7-point Likert scale, with higher scores indicating greater interest and better expected performance. The mean, standard deviation, and observed range of scores for each survey were as follows: anticipated interest $M = 4.81$, $SD = 1.26$, range = 1–7; expected performance $M = 4.93$, $SD = .92$, range 2–7.

Immediately after taking the IPT-15, participants completed a post-task survey that included items designed to assess their feelings of task absorption (e.g., Sarason, 1980) and their future interest in the task. The mean of two items—''While working on the task I lost track of time'' and ''while working on the task I thought about things unrelated to the experiment'' (reverse scored)—constituted participants' feelings of task absorption. Participants' future interest in the task was assessed by having them rate how interested they were in doing ''another set of judgment tasks.'' Post-task ratings were made on a 7-point Likert scale, with higher scores indicating greater task absorption and more future interest. The mean, standard deviation, range of scores, and scale reliability (where applicable) for each survey were as follows: task absorption $M = 4.19$, $SD = 1.41$, range 1–7, Cronbach's $\alpha = 0.86$; future interest $M = 4.72$, $SD = 1.39$, range 1–7.

The Interpersonal Perception Task-15 (IPT-15)

The Interpersonal Perception Task-15 is an audiovisual measure of accuracy in interpreting interpersonal behavior conveyed via verbal and nonverbal cues (Costanzo & Archer, 1989, 1993). The IPT-15 has a total of 15 scenes, which are between 22 and 122 s in length. Each scene shows the naturally occurring interpersonal behavior of 1–4 people. Five different domains of interpersonal behavior are shown, namely deception, competition, status, kinship, and intimate relationships. For example, in one scene, a woman is sharing personal information about her life, and viewers must decide whether she is lying or telling the truth; in another scene, two men are reviewing their tennis match, and viewers must determine who won the match. For each scene there is an objectively correct answer because the de facto behavior or circumstances of the person or people serve(s) as the criterion measure for accuracy. To illustrate, regarding the scenes mentioned earlier, the woman is actually telling either falsehoods or truths about her life, and one of the men did in fact win the tennis match.

The IPT-15 has good test–retest reliability ($r = .73$) and good construct validity (Costanzo & Archer, 1993). Regarding its construct validity, individuals who are judged as possessing greater interpersonal sensitivity by their peers tend to do better on the IPT-15. However, the internal consistency of the IPT-15 is often very low (Costanzo & Archer, 1993). This low internal consistency is likely due to the fact that the IPT-15 has only 15 items and these items assess an individual's judgment accuracy across a wide range of domains (e.g., deception, competition, status relationships, etc.) (Costanzo & Archer, 1993). This would negatively affect the internal consistency of the IPT-15 to the extent that accuracy is not high or low for nonverbal cues in general. The fact that several other measures of interpersonal sensitivity also have weak internal consistency and correlate poorly with one another suggests that these measures actually assess a number of discrete nonverbal judgment skills, and that ability in one domain (e.g., skill at interpreting affective cues) does not necessarily generalize to other domains (e.g., skill at interpreting deception) (Hall, 2001).

Procedure

Men and women were ostensibly recruited to participate in a ''social perception'' study designed to assess their ''judgment skills.'' All participants were given the same judgment task (IPT-15) and told to try to answer the IPT-15 questions correctly. Participants were blocked on gender and randomly assigned to 1 of 3 purpose-goal conditions in a 2 (participant gender: male versus female) by 3 (no purpose goal versus feminine purpose goal versus masculine purpose goal) factorial design.

In small mixed-sexed groups, participants were provided informed consent. Next, after participants were randomly assigned to a purpose goal condition, a trained experimenter opened the envelope that included the relevant condition information on two separate transparencies: the first one contained the purpose goal manipulation; the second one, the general instructions for the IPT-15. The experimenter placed the first transparency on a projector and read all the information written on it aloud to the participants, and then did the same for the second one.

Control participants were not given any purpose goal information; rather, they heard and read that they would be taking a task that required them to watch a videotape. Participants in the experimental conditions were given one of two interpersonal purpose goals, which were modeled after Smith et al. (2001). In the feminine purpose goal condition, participants heard and read that their purpose in doing the upcoming task was as follows (italicized information represents the *masculine purpose goal* condition):

> ''The INT division of the Department of Social Services (INT-DOSS)/*The INT division of the Department of Defense (INT-DOD)* has developed and used the so-called ''HELPER''/''*HUNTER*'' task as a tool in determining which job applicants have the necessary judgment skills—specifically, the ability to interpret the meaning of other people's behavior—to work as social workers/*interrogators* in various trouble spots in the U.S.A. However, the HELPER/*HUNTER* task has never been validated using undergraduate students as subjects. You will be given a chance to take and evaluate the HELPER/*HUNTER* task. Recruiters who are interested in using the HELPER/*HUNTER* task as a screening tool for students getting ready to enter the job market will use the data gathered from this study.''

Following the presentation of the purpose goal information, participants in all 3 conditions heard and read the same general task instructions for the IPT-15. The task instructions included information about the task (e.g., the number of scenes they would see, how long they would have to answer each question, etc.), the format of the task (e.g., multiple-choice questions), and the task objective (viz., to interpret the meaning of the person's/people's behavior correctly in each scene of the videotape.)

After receiving their relevant condition information, all participants completed the instruction awareness survey and the pre-task surveys. Next, the IPT-15 answer sheets were handed out and the IPT-15 tape was started. At the conclusion of the IPT-15 tape, participants were given the post-task surveys. After everyone had completed the post-task surveys, the experimenter debriefed, thanked, and dismissed all the participants.

Results

Participants' answers on the IPT-15 were scored (0 = incorrect, 1 = correct) and summed to form a total accuracy score, which was entered into a 2 (participant gender: male versus

female) × 2 (OSU campus: Columbus versus Newark) × 3 (condition: no purpose goal versus feminine purpose goal versus masculine purpose goal) analysis of variance (ANOVA). Because there were no significant main or interaction effects involving campus where the data were collected (all *p*s ns), we collapsed over this variable and re-ran it as a 2 (gender) × 3 (condition) ANOVA. Results showed no main effects for gender, $F(1, 128) = .22$, $p = .64$, or condition, $F(2, 128) = 1.16$, $p = .32$, but a marginally significant interaction, $F(2,128) = 2.75$, $p < .07$. The means are presented in Table 1.

To assess whether the feminine-purpose and masculine-purpose goal conditions had a differential impact on men's and women's judgment accuracy on the IPT-15, we first compared men's and women's total accuracy scores in only the 2 purpose goal conditions. Results again showed no main effects for gender, $F(1, 83) = .22$, $p = .64$, or condition, $F(1, 83) = .12$, $p = .73$. However, a significant interaction between gender and purpose goal condition did emerge, $F(1, 83) = 5.06$, $p < .03$, $\eta_p^2 = .06$.

To understand the source of the interactions, we first compared men's accuracy to women's accuracy in the 3 separate purpose goal conditions. Simple effect analyses showed that, although there were no gender differences in accuracy in both the no-purpose-goal condition, $F(1, 128) = .01$, $p = .91$, $\eta_p^2 = .00$, and the feminine purpose goal condition, $F(1, 128) = 1.82$, $p = .18$, $\eta_p^2 = .01$, men were more accurate than women in the masculine goal condition, $F(1, 128) = 3.80$, $p = .05$, $\eta_p^2 = .03$.

Next, pairwise comparisons were run to assess the impact of the purpose-goal manipulations on judgment accuracy for men and women separately. Men's accuracy did not differ significantly from the no-purpose-goal condition to either the masculine purpose goal condition ($p = .85$) or the feminine purpose goal condition ($p = .09$). However, men were marginally less accurate in the feminine purpose goal condition than they were in the masculine purpose goal condition ($p = .06$). Women showed a marginal drop in accuracy from the no-purpose-goal condition to the masculine purpose goal condition ($p = .08$); all other comparisons for women were not significant (no-purpose-goal condition versus feminine purpose goal condition, $p = .75$; masculine versus feminine purpose goal condition, $p = .16$).

Inspection of the means in Table 1, which includes all 3 condition means for men and women, sheds light on why gender interacted with the purpose-goal manipulations. Specifically, being in a gender-congruent purpose goal condition did not improve men's and women's judgment accuracy, but rather the accuracy of men and women was relatively depressed in gender-incongruent purpose goal conditions.

Secondary Analyses

We performed secondary analyses to begin to explore why men's and women's judgment accuracy on the IPT-15 was differentially affected in the masculine and feminine purpose

Table 1 Men's and women's mean judgment accuracy on the IPT-15 as a function of purpose given for using their nonverbal judgment skills

	Men			Women		
	N	*M*	*SD*	*N*	*M*	*SD*
Feminine purpose goal	22	9.04[a]	0.33	24	9.67[a, b]	0.32
Masculine purpose goal	20	9.95[b]	0.35	21	9.00[a]	0.34
No purpose goal	21	9.86[b]	0.34	26	9.81[b]	0.31

Note: Means within rows and columns not sharing a superscript differ at $p < .09$ to $p < .05$

goal conditions. We tested the possibility that the purpose goal information created different pre-task, and/or post-task experiences for men and women. According to Person Environment Fit Theory, individuals should experience more positive task experiences when their interpersonal goals match the goals of the task they are performing. For example, with respect to their pre-task experiences, men and women might have anticipated relatively greater interest in taking the IPT-15 and anticipated that they would have performed better in the masculine and feminine purpose goal conditions, respectively, if the purpose for using their judgments skills on the IPT-15 was, in fact, more congruent with their respective interpersonal goals (cf. Ames & Kammrath, 2004).

Pre-task Expectations

Prior to taking the IPT-15, participants were asked to rate how interesting they thought the task would be and how well they thought they would perform on the task. We ran two 2 (gender) × 3 (purpose goal condition) ANOVAs, with participants' anticipated interest and expected performance ratings serving as separate dependent variables. In terms of anticipated interest, although there were no main effects for gender, $F(1, 128) = .75$, $p = .39$, or condition, $F(2, 128) = 2.18$, $p = .12$, the Gender × Condition interaction did approach significance, $F(2, 128) = 2.56$, $p = .08$, $\eta_p^2 = .04$.[1] A Tukey HSD post-hoc test showed that men in the masculine purpose goal condition ($M = 5.35$) thought the IPT-15 would be more interesting than did men in the no-purpose-goal condition ($M = 4.29$, $p < .05$). However, men's anticipated interest means did not differ in the masculine and feminine purpose goal conditions ($M = 4.50$), $p = .12$, or in the feminine and no-purpose-goal conditions, $p = .86$. Women reported similar levels of anticipated interest in the 3 purpose-goal conditions (control $M = 5.04$; feminine purpose goal $M = 4.75$; masculine purpose goal $M = 4.91$; all ps > .62). Regarding expected performance, no significant main or interaction effects were found [Gender $F(1, 128) = .14$, $p = .71$; Condition $F(2, 128) = .14$, $p = .87$; Gender × Condition $F(2, 128) = .07$, $p = .93$]. In short, there was no support for the predictions that men and women would report relatively more interest and better expected performance on the IPT-15 in their respective gender-congruent purpose goal conditions.

In an exploratory vein, we also correlated (Pearson r) participants' anticipated interest/expected performance scores with their actual performance on the ITP-15. Anticipated interest in the IPT-15 was not correlated with actual performance, overall [$r(134) = .06$, $p = .47$], nor as a function of gender and condition [Men: no purpose goal, $r(21) = .04$, $p = .87$, feminine purpose goal, $r(22) = .27$, $p = .23$, masculine purpose goal, $r(20) = .13$, $p = .57$; Women: no purpose goal, $r(26) = .06$, $p = .77$, feminine purpose goal, $r(24) = -.02$, $p = .92$, masculine purpose goal, $r(21) = -.20$, $p = .38$]. Similarly, expected performance was not correlated with actual performance on the IPT-15, overall [$r(134) = .10$, $p = .26$], nor as a function of gender and condition [Men: no purpose goal, $r(21) = -.03$, $p = .89$, feminine purpose goal, $r(22) = .27$, $p = .23$; Women: no-purpose-goal, $r(26) = .31$, $p = .12$, feminine purpose goal, $r(24) = -.32$, $p = .13$, masculine purpose goal, $r(21) = -.23$, $p = .32$], with one exception: how well men thought they would do on the IPT-15 was positively correlated with their performance in the masculine purpose goal condition, $r(20) = .55$, $p = .01$.

[1] An ANOVA on men's and women's anticipated interest scores in only the 2 purpose goal conditions did not reveal a significant Gender × Condition interaction ($p = .17$).

Task Absorption

We conducted a 2 × 3 analysis of variance (ANOVA) on participants' task-absorption ratings. No significant main effects were found for gender, $F(1, 128) = .42$, $p = .52$, or condition, $F(2, 128) = 1.31$, $p = .27$. However, the Gender × Condition interaction was marginally significant, $F(2, 128) = 2.40$, $p = .09$, $\eta_p^2 = .04$.[2] A Tukey HSD post-hoc test showed that men reported being more involved in the task in the masculine purpose goal condition ($M = 4.68$) than they did in the no-purpose-goal condition ($M = 3.55$), $p = .05$, and no differences in men's self-reported task absorption in the no-purpose-goal and the feminine purpose goal conditions ($M = 4.11$), $p = .44$, or the feminine purpose goal and masculine purpose goal conditions, $p = .45$. Women reported similar levels of task absorption in the 3 conditions (no purpose goal $M = 4.41$; feminine purpose goal $M = 4.17$; masculine purpose goal $M = 4.24$; all ps > .79).

Post-task Motivation

After completing the IPT-15, participants were asked to rate how interested they were in taking another set of judgment tasks in the future. Participants' future-interest ratings were submitted to a 2 × 3 ANOVA. No significant main effects were found for gender, $F(1, 128) = .38$, $p = .54$, or condition, $F(2, 128) = .25$, $p = .78$, and gender did not interact with condition, $F(2, 128) = .82$, $p = .44$.[3]

Discussion

Although a large body of research has shown that women tend to outperform men on measures of interpersonal sensitivity, there is a lack of consensus about the conditions that lead to enhanced or depressed interpersonal sensitivity on the part of men and women (e.g., see Hall, 1984). We argued that women's advantage over men on measures of interpersonal sensitivity might be due to the implied purpose goal of such measures being more congruent with the interpersonal goals of women than men, and thus the implied purpose goal is one plausible factor associated with enhanced or depressed interpersonal sensitivity. To investigate this, men's and women's judgment accuracy on the Interpersonal Perception Task-15 (Costanzo & Archer, 1989, 1993) was tested when they were not given an explicit reason for using their judgment skills on this task (i.e., the no-purpose-goal or control condition) or the purpose for using their judgment skills was manipulated to be either congruent or incongruent with stereotypic masculine or feminine interpersonal goals.

Our results showed that each gender was at a relative disadvantage in their respective gender-incongruent interpersonal goal conditions: men were relatively less accurate in the feminine purpose goal condition than they were in the masculine purpose goal condition, whereas the reverse was true for women. When comparisons were made with the control

[2] An ANOVA on men's and women's task-absorption scores in only the 2 purpose goal conditions did not reveal a significant Gender × Condition interaction ($F < 1$).

[3] Exploratory correlations (Pearson r) showed that participants' anticipated interest in doing the IPT-15 was positively correlated with their interest in doing another set of judgment tasks (i.e., future interest), $r(134) = .40$, $p < .001$, expected performance on the IPT-15, $r(134) = .26$, $p = .003$, and feelings of task absorption while taking the IPT-15, $r(134) = .34$, $p < .001$. Also, participants' task-absorption scores were positively correlated with their future-interest scores, $r(134) = .33$, $p < .001$.

(no purpose goal) condition, we found that men's and women's judgment accuracy was not enhanced in the gender-congruent purpose goal conditions, but rather it was somewhat depressed in the gender-incongruent purpose goal conditions. Men's accuracy was the lowest when they thought the IPT-15 was developed by the department of social services as a tool to identify those individuals who have the judgment skills necessary to work as social workers, whereas women's accuracy was the lowest when they thought the IPT-15 was developed by the department of defense as a tool to identify those individuals who have the judgment skills necessary to work as interrogators in the military.

It may not be surprising that it was the mismatch between men's and women's interpersonal goals and the purpose goals they were given for working on the judgment task (IPT-15) that resulted in their relatively poor performance. Indeed, when given the option to do so, individuals will often go to great lengths to change a task from one that is incongruent with their goals to one that is congruent with their goals (e.g., Isaac et al., 1999). Men and women in the current study were not given an option to alter the purpose goals of the task, and the mismatch appeared to negatively affect their performance, particularly men's.

An alternative explanation for men's accuracy being lower in the feminine purpose goal condition is that men might have been under stereotype threat in this condition, which is the situational experience of worry or pressure that one's performance may confirm a negative stereotype (Schmader, Johns, & Barquissau, 2004; Steele & Aronson, 1995; see Smith, 2004, for a review). It is possible that both men and women inferred that the IPT-15 was tapping into women's superior judgment skills in the feminine purpose goal condition and this put only men under stereotype threat, given that men are stereotyped as poor at affective tasks compared to women and believed to be less skilled than women are at understanding people's nonverbal messages (Briton & Hall, 1995; Leyens, Desert, Croizet, & Darcis, 2000). As such, men's performance was lower in this condition compared to when the stereotype was essentially ''nullified'' in the masculine purpose goal condition (Smith & White, 2002).

However, stereotype threat probably cannot account for women being relatively less accurate in the masculine purpose goal condition, given that women do not presumably worry about confirming a negative stereotype about their gender in this domain (viz., having worse nonverbal judgment skills than men) (Briton & Hall, 1995; cf. Smith & Johnson, 2006, for research on the pressures of positive stereotypes). This may be why women were less affected by the masculine versus feminine purpose-goal manipulations than men were. Alternatively, women's judgment accuracy might have been less affected because the IPT-15 requires test-takers to understand other people and social relationships (this was the case even in the masculine goal condition) and thus may be inherently more in line with women's interpersonal goals.

Investigating gender differences in nonverbal judgment accuracy is important given that it is not known why women tend to be better than men at interpreting nonverbal cues, as assessed by a wide range of measures of interpersonal sensitivity (Hall, 1984; Rosip & Hall, 2004). Our study points to the possible importance of the reason men and women are given or not given for using their judgment skills on such measures. The relevance of this is that researchers do not fully understand the purpose goals that become activated in the minds of men and women when they take a test such as the IPT-15 under supposedly control conditions. One can imagine control conditions that vary with respect to the degree of congruency that exists between the test-takers interpersonal goals and the purpose they perceive for using their judgment skills on the IPT-15. For instance, less congruency might be predicted for men when a female experimenter as opposed to a male experimenter

administers the IPT-15 to them, especially if the presence of a woman serves as a contextual (gender) cue that the test at hand deals with understanding others and thus is more in keeping with the relationship goals of woman.

We suggest that, without being given an explicit reason for using their nonverbal judgment skills on a measure of interpersonal sensitivity such as the IPT-15, such measures might be, *on average*, more congruent with women's actual or perceived interpersonal goals than men's, and thus be one possible explanation for women's *tendency* (e.g., we did not find a gender difference in the no-purpose-goal condition) to outperform men on such measures. Thus, how testing situations influence the purpose goals that do or do not become activated in men and women when they take a measure such as the IPT-15 may be an important factor in understanding gender differences in interpersonal sensitivity. The fact that men were more accurate than women in the masculine-goal condition underscores this point.

Our study adds to existing research in that it is the first to show that men's and women's accuracy on the ITP-15 can be influenced by the same factor, namely the purpose goal they are given for using their nonverbal judgment skills. Previous research has shown that men and women can show enhanced judgment accuracy but for different reasons. For example, with respect to interpreting basic emotions from facial expressions, men were found to be more accurate when they thought their performance was—as opposed to was not—sign of their social competence, and women were more accurate than men when both were in a psychological state of anticipating an upcoming social interaction with a stranger (Mufson & Nowicki, 1991; Nowicki & Hartigan, 1987). Other research has shown that, although women were more accurate than men at interpreting facial expressions of basic emotions under standard testing conditions, women did not have an advantage over men when both were offered money for doing well on the judgment task, suggesting that men needed this form of extrinsic motivation to perform as well as women (Nowicki & Richman, 1985).

It was argued earlier that measures of interpersonal sensitivity might favor the interpersonal goals of women and thus serve as a cue to remind men and women that the task at hand is one which women are or are expected to be better at than men. The relevance of this is that there is suggestive evidence that gender-role expectations might influence men's and women's accuracy in a related judgment domain, that of empathic accuracy (Graham & Ickes, 1997; Ickes et al., 2000; but see Klein & Hodges, 2001; Thomas, Fletcher, & Lange, 1997). In a meta-analytic review of gender differences in empathic accuracy, Ickes et al. (2000) found that women draw more accurate inferences about the thoughts and feelings of others than do men only when both are required to evaluate their own empathic accuracy. Specifically, men's performance is not influenced under conditions of self-evaluation, but women's performance gets better. Ickes et al. (2000) argued that self-evaluation is a task cue that has a differential impact on men's and women's task motivation. Under conditions of self-evaluation, women become more motivated than men to do well on the empathic-accuracy task because women want to—or feel obligated to—demonstrate a gender-congruent interpersonal goal, that is, that women should be more empathic around others than men (Graham & Ickes, 1997; Ickes et al., 2000). In short, Ickes et al. suggest that it is the combination of a task cue (viz., self-evaluation) and men's and women's pre-existing expectations that results in gender differences in empathic accuracy, with women outperforming men not because they have greater empathic ability but rather because women become more motivated than men to use their empathic skills effectively.

Our findings are different from Ickes et al. (2000) in that women did not show enhanced judgment accuracy or better accuracy than men when the task cue (i.e.,

feminine purpose goal) was congruent with gender-role expectations for women. Instead, both men and women displayed relatively depressed nonverbal judgment accuracy when the externally provided purpose goal did not match the gender-relevant interpersonal goals of each gender.

One implication of this research concerns cultural differences in interpersonal sensitivity. Although previous research has not shown that individuals from interdependent cultures do better on the IPT-15 than do those from independent cultures (Iizuka, Patterson, & Machen, 2002), future research should be directed at examining cultural differences in judgment accuracy as a function of how measures of interpersonal sensitivity are framed. Specifically, individuals from interdependent cultures might show a relative advantage in judgment accuracy when the IPT-15 is framed as assessing judgment skills of use to groups (because such skills help group members to relate to one another more effectively), whereas individuals from independent cultures might show a relative advantage in judgment accuracy when the IPT-15 is framed as assessing judgment skills of use to the individual (because such skills help him or her to function more effectively in day-to-day life).

There are two notable limitations to our findings. First, we used only the ITP-15, and thus the role of purpose goals on men's and women's accuracy on other measures of interpersonal sensitivity, such as the PONS, BART, and TONIK (see Rosip & Hall, 2004), is not known. Second, gender was used as a proxy for differences in interpersonal goals (viz., greater independence versus greater interdependence). Specifically, it was assumed that, because men are more likely than women to have the interpersonal goals of being assertive and controlling in interpersonal situations, a task that measured skills used to establish greater interdependence with others (as a social worker would in the feminine purpose goal condition) would represent a greater mismatch between the purpose goal of the task and the interpersonal goals for men than women. Likewise, it was assumed that, because women are more likely than men to have the interpersonal goals of wanting to work with others and maintain harmony in interpersonal situations (e.g., Cross & Madson, 1997; Smith et al., 2001), a test that measured skills used to establish greater independence from others (as an interrogator would in the masculine purpose goal condition) would represent a greater mismatch between the purpose goal of the task and the interpersonal goals for women than men. Future research would benefit from measuring individual differences in interpersonal goals and then assessing people's judgment accuracy when the purpose goal of the IPT-15 is manipulated to be either congruent or incongruent with their self-reported interpersonal goals.

One unanswered question concerns the nature of the causal mechanism(s) responsible for the effects of the purpose-goal manipulations on men's and women's performance on the IPT-15. Our research was not designed to investigate systematically potential mediators of the incongruency–performance relationship. Rather, we set out to demonstrate that interpersonal sensitivity can be influenced by purpose goals. In future research, a think-aloud protocol could be used to investigate specific cognitive or motivational factors that might be responsible for depressing men's and women's judgment accuracy. Specifically, men's and women's thoughts, feelings, and physiological arousal could be measured when they take the IPT-15 under purpose-goal conditions that either match or do match their self-reported interpersonal goals.

Acknowledgements This research was supported by Grant No. T32-MH19728 from the National Institute of Mental Health to the first author. The authors wish to thank Brittany LaFuse, Sandra Lee, Jessica Peugh, Tanya Patel, Katie Riggle, Daveen Ruiz, and T. Ryan Snyder for their assistance with data collection and analysis, and Judith Hall, Marianne McGrath, and Marianne Schmid Mast for their helpful comments on earlier drafts of the manuscript.

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