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Justice in Personality Testing: Influence of Outcome, Modality, & Elaboration

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Abstract

While personality testing has been found to be a valid method of personnel selection, its use has yet to be generally accepted by job applicants. This study examines methods of test administration that may attenuate applicants' negative perceptions of personality tests. The provision of an opportunity to elaborate on test items and presenting the test face-to-face rather than on paper was predicted to enhance perceptions of test fairness. It was found that the elaboration opportunity improved test-takers' sense of control, but lessened their perception of interpersonal fairness. Unfavorable outcomes were also associated with more negative reactions.

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Numerous studies have demonstrated the validity of using personality tests in personnel selection (Barrick & Mount, 1991; Tett, Jackson, & Rothstein, 1991). Despite the evidence for their validity as predictors of performance, job applicants look unfavorably upon personality tests (Rynes & Connerley, 1993; Rosse, Ringer, & Miller, 1996). Another concern is that applicants will distort their responses on personality tests (Douglas, McDaniel, & Snell, 1996; Ellingson, Smith, & Sackett, 2001) compromising the validity and the accuracy of the scores (Holden & Fekken, 1989; Snell & McDaniel, 1998). The present study seeks to clarify which aspects of the personality testing experience lead to negative reactions among test takers, and how these reactions can be avoided, or at least attenuated. This study also examines how manipulations of the testing procedure can affect the test-takers' tendencies to distort their responses in a socially desirable direction, and will explore relationships between response distortion and attitudinal reactions to test content and test results.

One factor that could conceivably influence reactions to a personality test is the outcome of the test. That test-takers would react differently to a test after receiving unfavorable rather than favorable feedback follows from the evidence for a self-serving bias that has been found. The self-serving bias is essentially the tendency to take credit for successes and avoid blame for failures (Larson, 1977; Bradley, 1978; Gioia & Sims, 1985). When applicants receive unfavorable results from a selection procedure, the attributional effects of the self-serving bias can cause them to seek out external factors that could have contributed to their failure, and the fairness of a personality test, the relevance of which the applicant may not fully understand, is often an easy target.

While the nature of a test's outcome can be expected to influence reactions to the test, research also suggests that applicant perceptions of the procedural and interactional fairness of the test can be strong determinants of attitudinal reactions, regardless of outcome. A theoretical framework that we can use to understand applicant reactions to personality tests is organizational justice theory (Gilliland, 1993). Organizational justice encompasses how people view both the procedural and distributive fairness of decision-making processes. Distributive justice deals with the perceived fairness of the way in which resources are dispersed or goods are allocated. Procedural justice concerns the fairness of the methods used to reach a decision and how the decision-making process is handled by the decision-makers (Folger & Greenberg, 1985). Numerous studies have established that being given an opportunity to present relevant information in a decision-making process enhances perceptions of procedural fairness, the so-called "voice" effect (e.g., Folger, 1977; LaTour, 1978; Tyler, 1987).

The present experiment explored the effects of two key components of procedural justice: whether the participant is given a voice in the process, and the quality of interpersonal treatment (Greenberg, 1990; Bies & Moag, 1986; Gilliland, 1993). In this study we manipulated voice by either providing or not providing an opportunity to elaborate on personality items. The quality of interpersonal treatment was manipulated by administering the test face-to-face or via paper-and-pencil. It is predicted that giving test-takers an opportunity to elaborate on their responses to personality test items, beyond a simple number-scale response, will induce the voice effect, leading to improved perceptions of procedural fairness. A second manipulation will involve the interpersonal context of the testing procedure. When evaluating the interpersonal fairness of a

procedure, people judge the decision maker's attentiveness and respectfulness, and how considerate they appear to be (Tyler & Bies, 1990). In the present study, it will be determined whether or not the simple manipulation of administering a personality test face-to-face with the test-taker, rather than leaving the test-taker alone to complete the identical test in a traditional paper-and-pencil format, can improve perceptions of interpersonal fairness.

In addition to influencing the reactions to a test and acceptance of the results of the testing procedure, the procedural justice of the testing procedures is expected to influence the degree to which test takers' responses are biased in a socially desirable direction. Test designers are aware that response biases and dissimulation, especially social desirability response sets, can threaten the validity of test results. Nederhof (1985) cites studies in which social desirability bias accounted for as much as 75 percent of the variance found in test results.

Gilliland (1995) has suggested that applicants' perception of a selection procedure as being unfair can lead to negative behavioral consequences, and McFarland (2002) posits that faking may be one of these negative behaviors affected by fairness perceptions. McFarland found that self-reported faking was greater among those test-takers who judged the test as being less fair. We hypothesized in the present experiment that a face-to-face presentation of a personality test is associated with less faking than a paper-and-pencil presentation, and that there is less faking when an elaboration opportunity is provided. Moreover, perceptions of fairness are predicted to mediate these effects of modality and elaboration opportunity.

In sum, the hypotheses of this study are: (1) participants will have more favorable

attitudinal reactions to a personality test when the outcome of the test is favorable than when the outcome is unfavorable; (2) participants will have more favorable reactions to a personality test when they are given the test in a face-to-face rather than paper-and-pencil format; (3) participants will have more favorable reactions to a personality test when they are given an opportunity to elaborate on their responses than when they are not allowed to elaborate; (4) the effects of modality and opportunity to elaborate on attitudinal reactions to the test are mediated by perceptions of the test's fairness; (5) the effects of the modality and opportunity to elaborate will interact with the favorability of the outcome such that the effects hypothesized in 2 and 3 will be more pronounced when the feedback from the test is unfavorable than when it is favorable; (6) participants will engage in less socially desirable responding when the test is presented in a face-to-face rather than paper-and-pencil format; (7) participants will engage in less socially desirable responding when they are given an opportunity for elaboration; and (8) these effects on response distortion will be mediated by perceptions of the test's fairness.

Method

Design and Participants

This study employed a 2x2x2 factorial design. The participants were 80 undergraduate students participating for course credit, and were randomly assigned to the conditions of the experiment. Participants were either given a face-to-face or paper-and-pencil test administration of the test (40 participants in each modality), were either given an elaboration opportunity or not (40 in each condition), and either received favorable or unfavorable feedback on the results of the test (40 participants were randomly assigned to receive each form of feedback). On a random basis, half of the participants were assigned

to receive favorable feedback while the other half received unfavorable feedback.

Participants signed up for the study for course credit, and once in the experiment were told that they could also be awarded five-dollar cash prizes as part of the study.

Measures

Attitudinal reactions to the test were measured with a questionnaire constructed for this study. The initial survey consisted of items pertaining to perceptions of process control, interactional fairness, and overall fairness, as well as the test's accuracy, correctability, respectfulness, discomfort, attitude toward tests, and affective reactions to the test. The post-feedback survey contained these items as well as several related to the participants' acceptance of their feedback and manipulation checks (see Appendix A).

The personality test used was the 50-item measure of the Big Five personality dimensions from the online International Personality Item Pool (IPIP, 2001; see Appendix B). The 20-item impression management subscale of the Balanced Inventory of Desirable Responding-7 (Paulhus, 1998; see Appendix C) was incorporated into the test as a measure of socially desirable responding. Those who were given the opportunity for elaboration were provided with additional blank lines for each item in the paper-and-pencil conditions, and verbally told to feel free to give clarifications to their responses in the face-to-face conditions.

Procedure

After signing an informed consent statement, instructions were given to the participants on a sheet of paper, and also read aloud by the experimenter. Participants were told that this study was examining the use of a personality test as a predictor of job performance, and that they should indicate on a list the job they were most interested in

as a possible future career. Participants were told to imagine they are applying for a job in their selected occupation. In a second session, one week later, they were told that those participants who were the best matches to their indicated jobs would receive \$5 rewards.

In the paper-and-pencil conditions, participants were handed the test, either with free-response blanks in addition to the number-scale blanks or with the number-scale blanks only, depending on the elaboration opportunity condition to which they were assigned. After providing instructions, the experimenter left the room and was not present during the testing period. In the face-to-face conditions, the experimenter sat across a table from the participant and read the test items aloud to him or her, either with or without telling the participant that they should feel free to elaborate on their responses beyond their number-scale responses. When the personality test was completed, all participants were asked to fill-out the measure of attitudinal reactions and told to return in a week for their assessment results.

At the second session, participants were randomly assigned to either a condition in which they were told that they appeared to be a good match to their selected occupation, or that they did not match a successful person in the occupation. Those who were told that they matched their chosen occupation were given five-dollar cash rewards. After reading a brief statement giving them this randomly assigned feedback participants completed a second survey of their test reactions and of their reactions to their results. When this second survey was returned, participants were debriefed.

Results

Reliability analyses were performed on the five personality dimensions measured by the IPIP test, the impression management scale, and the subscales of the reactions surveys. The reliability coefficients were generally high and acceptable.

Hypothesis Tests

Hypothesis 1. Exploring the effects of feedback favorability, a multivariate effect of the nature of the feedback was found affecting test reactions (post-feedback), Wilks' Lambda = .726, $F(9, 70) = 2.93, p < .01$ (see Table 1), supporting hypothesis 1.

Participants were more favorable in their perceptions of the personality test and the accuracy of the outcome when the outcome of the test was favorable than when the outcome was unfavorable. Repeated measures analyses were performed to test for changes that may have occurred in test reactions from the first survey, taken immediately after testing and before feedback was provided, to the second survey, taken after receiving feedback (see Table 2).

Hypotheses 2 and 3. MANOVAs were performed to test hypotheses 2 and 3, that mode of test presentation and elaboration opportunity would affect participants' test reactions. No significant effects of test modality were found, contrary to hypothesis 2. There was, however, a multivariate effect of elaboration opportunity, Wilks' Lambda = .568, $F(18, 61) = 2.58, p < .005$ (see Table 3), supporting hypothesis 3. A multivariate analysis of variance revealed that elaboration opportunity and test modality had two interacting effects on test reactions (see Table 4).

Hypothesis 4. Regression analyses were performed to test hypothesis 4, that fairness perceptions would mediate the effects test modality and elaboration opportunity had on other test reactions (see Table 5).

As process control was also found to predict accuracy perceptions after feedback, and process control was influenced by the elaboration opportunity, it was tested as a mediator of elaboration's effect on perceptions of accuracy. Regression analysis with both variables in the model found that process control fully mediated the elaboration opportunity's effect on perceptions of accuracy (elaboration $b = .045, p = .812$; process control $b = .678, p < .001$). This mediation effect was the only evidence found in support of hypothesis 4.

Hypothesis 5. A multivariate test found that feedback favorability moderated the elaboration opportunity's effects on test reactions, Wilks' Lambda = .784, $F(9, 68) = 2.09, p < .05$ (see Table 6), findings that lend support to hypothesis 5. There were not, however, any interactions between feedback favorability and test modality.

Hypotheses 6, 7, and 8. There were no main effects found for test modality or elaboration opportunity on socially desirable responding, contrary to hypotheses 6 and 7. However, there was a marginally significant interaction effect, $F(1, 76) = 3.39, p = .070$, such that impression management was greater among the face-to-face testing participants when no elaboration opportunity was provided than when it was provided, $F(1, 38) = 4.23, p < .05, M = 10.90 (3.48)$ vs. $8.65 (3.44)$, but the elaboration opportunity had no effect on impression management in the paper-and-pencil conditions, $F(1, 38) = .39, p = .539, M = 10.25 (3.85)$ vs. $11.00 (3.80)$. Bivariate correlations of impression management with test reactions revealed that socially desirable responding was positively correlated

with perceived respectfulness ($r = .252, p < .05$), interactional fairness ($r = .224, p < .05$), affective reactions ($r = .317, p < .005$), and attitude toward tests ($r = .257, p < .05$), all as assessed before the provision of feedback (see Tables 7 and 8). None of these reactions appeared to mediate the attenuating effect on impression management that the elaboration opportunity exhibited for the face-to-face conditions, so hypothesis 8 was not supported.

Exploratory Analyses

Feedback Acceptance. When the feedback was favorable, its acceptance was correlated with perceptions of overall fairness before feedback ($r = .337, p < .05$), perceptions of the test's accuracy both before ($r = .361, p < .05$) and after ($r = .411, p < .01$) feedback was received, with positive affective reactions both before ($r = .405, p = .01$) and after ($r = .411, p < .001$) feedback, and with attitude toward testing ($r = .337, p < .05$). When feedback was unfavorable, its acceptance was also correlated with perceptions of the test's accuracy both before ($r = .394, p < .05$) and after ($r = .689, p < .001$) feedback was provided, with attitude toward testing ($r = .356, p < .05$), and with perceived process control as assessed after feedback was provided ($r = .408, p < .01$).

Further Exploration of Elaboration. Repeated measures analyses of variance were performed to examine how elaboration opportunity's effect changed from the first to the second survey (see Table 9). For several of the reactions scales, with the provision of an opportunity to elaborate perceptions did not decline but stayed constant, whereas without the opportunity these perceptions became more negative.

To examine the elaboration effect more closely, analyses were performed using the number of items participants actually elaborated on when given the opportunity. A univariate analysis of variance found that the effect of modality on propensity to

elaborate approached significance, $F(1, 38) = 2.99, p = .092, M = 18.10 (20.29)$ vs. 9.55 (8.79). The mean number of items responded to in the paper-and-pencil condition was considerably greater than in the face-to-face condition, but the high standard deviations reflect the large variance in this variable. The number of free responses made was negatively related to one of the reactions measures, interactional fairness as assessed before feedback, $b = -.009, p < .05$.

Discussion

This study found considerable evidence that the way a person perceives a personality test is greatly affected by the favorability of the test's results. There are a couple of possible explanations for these findings. As proposed in the introduction to this study, this may reflect a self-serving bias in which the test-takers sought to attribute the cause of a negative outcome to flaws in the testing process rather than to themselves. They would therefore see the test as less fair, less respectful, etc., as a form of self-esteem protection. Another possibility is that the favorable outcome was simply more believable to the participants. Studies examining acceptance of personality interpretations have found that negatively worded interpretations are less accepted (Mosher, 1965; Weisberg, 1970), and it has been suggested that this is because such negative feedback is discrepant from the participant's self-perception (Halperin, Snyder, Shenkel, & Houston, 1976). If the participants found the possibility that they were not qualified for the job they were interested in unbelievable, and did not 'buy-in' to the accuracy of the results, this may also have led to more negative reactions to the test itself.

The opportunity for elaboration did improve perceptions of process control, as well as attenuating the drops in perceptions of process control, the test's accuracy and the

test's respectfulness that occurred once feedback was provided. However, it also led to a decrement in perceptions of the test's interactional fairness. The enhancement of process control was expected, but the damage that the elaboration opportunity did to perceptions of interactional fairness seems more paradoxical. This finding may be evidence of a corollary to the voice effect, suggesting that under certain circumstances, possibly when personal information is at issue, the opportunity to elaborate can induce negative test reactions. The regression analysis indicating that perceptions of interactional fairness decreased as respondents elaborated on more test items would seem to support this idea.

For the paper-and-pencil test-takers, the opportunity to elaborate had little impact on their impression management (actually causing a slight increase), but being able to elaborate did lead to a significant reduction in impression management among the face-to-face test-takers. It could be speculated that both a face-to-face interaction and the opportunity to elaborate caused the test-takers to feel sufficiently at ease with the test administrator that they felt little need to distort their responses, while the elaboration opportunity may have induced greater anxiety and more of a need to appear desirable without the face-to-face contact.

The results of this study point toward some practical implications for selection practices. When paper-and-pencil measures are to be used, these results indicate that the provision of an opportunity to elaborate, which can be the simple addition of free-response blanks to a test form, will have the predicted effect of improving perceptions of process control, but further exploration of how this manipulation of the testing procedure affects other reactions is warranted.

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TABLE 1

Multivariate Analysis of Variance for Effects of Feedback Favorability on Post-Feedback Reactions

Wilks' Lambda = .726, $F(9, 70) = 2.93, p = .005$					
Source	$F(1, 78)$	η^2	p	M (sd) Positive feedback	M (sd) Negative feedback
Process Control	16.21**	.172	<.001	3.60 (.65)	2.89 (.91)
Accuracy	21.25**	.214	<.001	3.18 (.76)	2.31 (.90)
Correctability	.14	.002	.708	2.65 (.92)	2.56 (1.15)
Respectfulness	4.22*	.051	.043	4.21 (.57)	3.91 (.72)
Overall Fairness	17.65**	.184	<.001	3.61 (.56)	2.96 (.80)
Affective Reactions	7.40**	.087	.008	3.95 (.76)	3.45 (.87)
Attitude Toward Testing	15.65**	.167	<.001	2.86 (.82)	2.15 (.79)
Discomfort	.12	.002	.729	1.93 (.75)	1.86 (.85)
Interactional Fairness	.32	.004	.572	4.71 (.52)	4.64 (.56)

* $p < .05$, ** $p < .01$

TABLE 2

Repeated Measures Analyses of Variance - Changes in Test Perceptions After Delivery of Feedback

Source	$F(1, 79)$	η^2	p	M (sd) Before feedback	M (sd) After feedback
Process Control	10.42**	.117	.002	3.53 (.80)	3.24 (.86)
Accuracy	6.38*	.075	.014	2.96 (.85)	2.74 (.94)
Correctability	14.42**	.154	<.001	3.15 (1.05)	2.61 (1.04)
Respectfulness	3.97	.048	.050	4.19 (.67)	4.06 (.67)
Overall Fairness	1.55	.019	.217	3.39 (.77)	3.28 (.76)
Affective Reactions	.48	.006	.491	3.75 (.72)	3.70 (.85)
Attitude Toward Testing	2.66	.033	.107	2.64 (.95)	2.51 (.88)
Discomfort	5.36*	.064	.023	1.68 (.78)	1.89 (.80)
Interactional Fairness	5.57*	.066	.021	4.80 (.39)	4.68 (.54)

* $p < .05$, ** $p < .01$

TABLE 3

Multivariate Analysis of Variance for Effects of Elaboration Opportunity on Reactions

Wilks' Lambda = .568, $F(18, 61) = 2.58$, $p = .003$					
Source	$F(1, 78)$	η^2	p	M (sd) No elaboration	M (sd) With elaboration
Process Control Pre-Feedback	4.09*	.050	.046	3.36 (.84)	3.71 (.72)
Process Control Post-Feedback	24.33**	.238	<.001	2.83 (.85)	3.66 (.66)
Accuracy Pre-Feedback	.85	.011	.360	2.88 (.93)	3.05 (.77)
Accuracy Post-Feedback	9.44**	.108	.003	2.44 (.96)	3.05 (.82)
Correctability Pre-Feedback	.000	.000	1.000	3.15 (.99)	3.15 (1.12)
Correctability Post-Feedback	1.84	.023	.179	2.45 (1.04)	2.76 (1.03)
Respectfulness Pre-Feedback	1.65	.021	.203	4.28 (.63)	4.09 (.70)
Respectfulness Post-Feedback	.20	.003	.657	4.03 (.64)	4.09 (.70)
Overall Fairness Pre-Feedback	.42	.005	.519	3.33 (.90)	3.45 (.63)
Overall Fairness Post-Feedback	2.83	.035	.096	3.14 (.83)	3.43 (.66)
Affective Reactions Pre-Feedback	.12	.002	.730	3.73 (.75)	3.78 (.71)
Affective Reactions Post-Feedback	.59	.007	.477	3.63 (.89)	3.78 (.80)
Attitude Toward Testing Pre-Feedback	.35	.004	.559	2.58 (.96)	2.70 (.95)

TABLE 3 continued

Attitude Toward Testing Post-Feedback	1.81	.023	.182	2.38 (.92)	2.64 (.82)
Discomfort Pre-Feedback	.51	.007	.477	1.61 (.84)	1.74 (.72)
Discomfort Post-Feedback	.83	.010	.366	1.81 (.74)	1.98 (.85)
Interactional Fairness Pre-Feedback	5.32*	.064	.024	4.89 (.28)	4.70 (.45)
Interactional Fairness Post-Feedback	2.63	.033	.109	4.78 (.43)	4.58 (.62)

* $p < .05$, ** $p < .01$

TABLE 4

Multivariate Analysis of Variance for Interacting Effects of Elaboration Opportunity and Test Modality on Reactions

Wilks' Lambda = .635, $F(18, 59) = 1.88, p = .036$						
Source	$F(1, 76)$	η^2	M (sd)		M (sd)	
			Face-to-face		Paper-and-pencil	
			No elaboration	With elaboration	No elaboration	With elaboration
Process Control	6.12*	.075	3.69 (.63)	3.63 (.72)	3.03 (.90)	3.80 (.73)
Pre-Feedback						
Process Control	.67	.009	3.03 (.68)	3.73 (.67)	2.63 (.96)	3.60 (.66)
Post-Feedback						
Accuracy	1.10	.014	3.00 (.93)	2.98 (.79)	2.75 (.92)	3.13 (.76)
Pre-Feedback						
Accuracy	.10	.001	2.68 (.92)	3.23 (.79)	2.20 (.95)	2.88 (.84)
Post-Feedback						
Correctability	5.17*	.064	3.33 (.95)	2.80 (.89)	2.98 (1.03)	3.50 (1.22)
Pre-Feedback						
Correctability	.84	.011	2.40 (1.01)	2.93 (.96)	2.50 (1.09)	2.60 (1.08)
Post-Feedback						
Respectfulness	1.11	.014	4.23 (.65)	4.20 (.69)	4.33 (.63)	3.98 (.71)
Pre-Feedback						
Respectfulness	.46	.006	4.12 (.69)	4.28 (.56)	3.93 (.60)	3.90 (.77)
Post-Feedback						
Overall Fairness	.01	.000	3.43 (.91)	3.57 (.62)	3.23 (.91)	3.33 (.63)
Pre-Feedback						
Overall Fairness	.79	.010	3.15 (.67)	3.58 (.53)	3.13 (.99)	3.27 (.75)
Post-Feedback						
Affective Reactions	.44	.006	3.93 (.72)	3.88 (.66)	3.53 (.74)	3.69 (.76)
Pre-Feedback						
Affective Reactions	.28	.004	3.87 (.71)	4.11 (.67)	3.39 (1.01)	3.44 (.80)
Post-Feedback						

TABLE 4 continued

Attitude Toward Testing	1.99	.026	2.78 (.87)	2.60 (.84)	2.38 (1.02)	2.80 (1.06)
Pre-Feedback Attitude Toward Testing	.00	.000	2.50 (.81)	2.75 (.82)	2.25 (1.02)	2.53 (.83)
Post-Feedback Discomfort Pre-Feedback	3.78	.047	1.98 (1.02)	1.78 (.70)	1.25 (.34)	1.70 (.77)
Discomfort Post-Feedback	2.16	.028	1.95 (.72)	1.85 (.75)	1.68 (.75)	2.10 (.95)
Interactional Fairness Pre-Feedback	6.55*	.079	4.85 (.27)	4.86 (.32)	4.94 (.28)	4.54 (.51)
Interactional Fairness Post-Feedback	4.92*	.061	4.74 (.41)	4.80 (.36)	4.81 (.46)	4.36 (.75)

* $p < .05$, ** $p < .01$

TABLE 5

*Overall Fairness as a Mediator of Process Control's Effects on Test Reactions
(regression coefficients when both process control and overall fairness are entered as
predictors)*

	Process Control <i>b</i>	Overall Fairness <i>b</i>
Accuracy Pre-Feedback	.183	.573**
Accuracy Post-Feedback	.390**	.566**
Respectfulness Pre-Feedback	.137	.257*
Respectfulness Post-Feedback	.115	.295*
Affective Reactions Pre-Feedback	.227*	.493**
Affective Reactions Post-Feedback	.279*	.399*
Attitude Toward Tests Pre-Feedback	.071	.656**
Attitude Toward Tests Post-Feedback	.197	.579**
Feedback Acceptance	.329	.770**

* $p < .05$, ** $p < .001$

TABLE 6

Multivariate Analysis of Variance for Interacting Effects of Elaboration Opportunity and Feedback Favorability on Post-Feedback Reactions

Wilks' Lambda = .784, $F(9, 68) = 2.09$, $p = .043$

Source	$F(1, 76)$	η^2	M (sd)		M (sd)	
			Positive feedback		Negative feedback	
			No elaboration	With elaboration	No elaboration	With elaboration
Process Control	4.17*	.052	3.35 (.60)	3.78 (.65)	2.43 (.80)	3.50 (.66)
Accuracy	10.15**	.118	3.21 (.71)	3.15 (.82)	1.87 (.68)	2.91 (.83)
Correctability	3.22	.041	2.24 (.81)	2.96 (.89)	2.61 (1.17)	2.50 (1.16)
Respectfulness	.06	.001	4.22 (.46)	4.20 (.66)	3.88 (.73)	3.94 (.74)
Overall Fairness	5.64*	.069	3.71 (.47)	3.54 (.63)	2.72 (.80)	3.27 (.70)
Affective Reactions	4.02*	.050	4.12 (.73)	3.83 (.77)	3.27 (.84)	3.71 (.87)
Attitude Toward Testing	8.24**	.098	3.06 (.83)	2.72 (.81)	1.87 (.61)	2.53 (.86)
Discomfort	1.53	.020	1.71 (.61)	2.09 (.81)	1.89 (.83)	1.82 (.92)
Interactional Fairness	.09	.001	4.85 (.33)	4.61 (.62)	4.72 (.49)	4.54 (.64)

* $p < .05$, ** $p < .01$