CHAPTER 4: RESULTS

The results are discussed in five sections. The effectiveness of the experimental manipulations are discussed in the first section, “Manipulation Checks”. Hypotheses 1 through 4 are discussed next in the section “Impact of the Independent Variables”. Hypotheses 5 through 7 are discussed in the following section, “The Relationship between Justification Acceptance and the Dependent Variables”. Hypothesis 8 is discussed in the section, “The Mediating Impact of Justification Acceptance on Outcome Variables”. Finally, additional relationships not mediated by justification acceptability are discussed in the last section, “Post Hoc Analyses: Significant Relationships that are not Mediated by Acceptability.”

Manipulation Checks

Using seven point Likert-type scales, subjects rated the extent to which they felt the justification was “specific”, the trainer was “expert”, and the extent to which they were “involved” in the outcomes of the training session. Multiple items were used for each measure. Analysis of variance was conducted to assess the relative impact and orthogonality of the independent variables for each measure. Multivariate analysis of variance was conducted for the outcome involvement manipulation since two measures were examined. The means and standard deviations for each manipulation check are summarized in Table 3. The ANOVA results are presented in Table 4.
**Justification Specificity.** Subjects in the specific justification condition rated the justification as significantly more specific ($M = 5.02$) than subjects in the vague justification condition ($M = 3.98$), $F(1,165) = 12.25$, $p < .001$. No other effects had an impact on specificity which suggests the manipulation was effective, and independent of the other manipulations.

**Source Expertise.** When the experimenter introduced the trainer as an “expert”, the subjects did perceive him as more expert ($M = 5.99$) than subjects who were told the trainer was a “non-expert” ($M = 5.20$). This difference was significant, $F(1, 165) = 20.80$, $p < .000$. There was also a specificity x involvement effect on this measure [$F(1,165) = 6.22, p < .014$], which suggests that perceptions of expertise were not completely independent of the specificity and involvement manipulations.

**Outcome Involvement.** Since the four item measure for outcome involvement failed to demonstrate adequate internal consistency ($\alpha = .61$), it was split into a general measure of outcome involvement (Items 1, 2 & 4) with better internal reliability ($\alpha = .70$), and a single item (item 3) measure of outcome involvement that specifically referred to the primary incentive.

MANOVA was conducted to assess the impact of the manipulations on these measures. The multivariate results indicated a main effect of involvement on the measures [$F(2,164) = 8.290, p < .000$]. Since no other effects were noted, univariate analyses were considered only for the main effect of involvement. For both measures, subjects in the
high outcome involvement condition felt more involved than subjects in the low involvement condition, and in each case this difference was significant.

For the general measure (Item 1--“I felt personally involved in this experiment.” Item 2 -- “Participation in this experiment was important to me.” Item 4 -- “I found myself quite motivated to perform well on the task.”), participants in the high involvement condition reported that they were more involved ($M = 4.95$) than those in the lower involvement condition ($M = 4.36$). This difference was significant, $F(1, 165) = 10.40, p < .002$.

Item 3 stated “The lottery cash prize was important to me.” Subjects in the high outcome involvement condition responded significantly higher to this item than subjects in the low outcome involvement condition ($M_{\text{high}} = 4.79, M_{\text{low}} = 3.98$). This difference was also significant [$F(1, 165) = 8.83, p < .003$]. Since no other effects were noted for either measure, the involvement manipulation was considered to be independent of the other independent variables.

According to the ELM, high involvement leads to the “effortful” elaboration of information contained in a message, whereas low involvement leaves subjects unmotivated to expend much effort processing argument content. Evidence from this study suggests that most participants were positively motivated to process the justification to some extent. Low outcome involvement participants reported a level of involvement above the midpoint (4) for the general measure of involvement ($M = 4.36$). The specific measure pertaining to the incentive (item 3) was an exception; the average response for
low involvement participants was slightly below the midpoint ($M = 3.98$). Although, the outcome involvement manipulation was successful in producing a significant difference between the high and low outcome involvement conditions, subjects in both conditions reported a positive level of involvement. This finding suggests that the “low” outcome involvement treatment would more accurately be depicted as a lower, or moderate level of involvement. Since the subjects in this “lower” involvement condition did experience positive levels of involvement, this condition may have failed to create an optimal condition for peripheral processing.

As a further check of processing motivation, two items were included on the questionnaire that assessed the degree of effort expended by the trainees in processing the justification (where high effort is indicative of central processing). Although the difference was in the correct direction, there was not a significant difference between the high and low outcome involvement subjects for this measure [$M_{\text{high}} = 4.78$, $M_{\text{low}} = 4.56$; $F(1, 171) = .89$, $p < .34$]. Furthermore, absolute levels were beyond the midpoint (4) on the seven point scales, indicating that subjects in both conditions expended some effort to process the justification. This finding again suggested that most subjects were motivated enough to process the justification “centrally” to some extent. It is important to note, however, that this particular measure of effort could have been inflated by socially desirable responding.
The Impact of the Independent Variables

In order to assess the impact of justification specificity, trainer expertise, and outcome involvement on the acceptability of the justification, perceptions of fairness and attachment reactions, MANOVA was conducted. The univariate (ANOVA) results are discussed below (where appropriate) in terms of the predicted relationships. The cell means and standard deviations for each dependent variable are presented in Table 5. The multivariate results for all dependent variables are presented in Table 6. The univariate results are presented in Table 7. The hypothesized univariate results are summarized in Table 8. In addition, post hoc tests using Fisher’s LSD were conducted to identify where the differences occurred within significant interactions.

Interaction effects: The moderating impact of involvement. Hypotheses 3 and 4 pertain to the moderating impact of outcome involvement with justification specificity and expertise on justification acceptability. Hypothesis 3 stated “When the outcomes are highly involving, the specificity of a justification for a change in a distributive criterion will have a greater positive impact on the acceptability of the justification, relative to source expertise.” Hypothesis 4 stated “When outcomes are less involving, source expertise will have a greater positive impact on the acceptability of the justification for a change in a distributive criterion, relative to the specificity of the justification.”

In order to assess these hypotheses, several interaction effects were examined together: specificity x expertise x involvement, specificity x involvement and expertise x involvement. These results are summarized in Table 8.
ANOVA indicated that there was a significant specificity x expertise x involvement interaction effect \( [F(1,165) = 5.32, p < .022] \). Analysis of this interaction (illustrated in Figure 2) using Fisher’s LSD post hoc test revealed partial support for Hypotheses 3 and 4. Hypothesis 3 predicted that specificity would have a positive impact under high involvement, whereas expertise would not. Under high involvement, it can be seen that the specific justification presented by either the expert or the non-expert was more acceptable than the vague justification delivered by the expert (Fisher’s LSD, \( p < .05 \)).

These accounts were not significantly more acceptable than a vague justification presented by a non-expert, however. This pattern of relationships indicates that specificity is important under high involvement. But more importantly, it reveals that a vague explanation is not necessarily a liability, depending upon the expertise of the account provider. Recipients may be more “forgiving” of the non-expert trainer and more likely to hold an expert accountable for giving a vague justification. In other words, it appears that experts were held to higher standards than non-experts in this particular context.

This latter finding is contrary to hypothesis 3 which predicted that expertise would not be important under high involvement. Interestingly, an expertise x involvement interaction \( [F(1,165) = 9.29, p < .003] \) indicated that expertise was important under high involvement (see Figure 3). Post hoc analysis demonstrated that the expert trainer’s justification in the high involvement condition was significantly less acceptable than both the expert trainer in the low involvement condition (Fisher’s LSD, \( p < .05 \)), and the non-expert trainer in the high involvement condition (Fisher’s LSD, \( p < .05 \)). These results
Figure 2: The effect of specificity x expertise x involvement on justification acceptability
Figure 3: The effect expertise x involvement on justification acceptability
further indicate that the expertise of the trainer was a liability under high involvement.

According to Hypothesis 4, expertise should have a positive impact under low involvement, whereas the specificity of the justification should have little or no impact. Analysis of the triple order interaction revealed that justifications (specific or vague) delivered by the expert under low involvement were more acceptable than a vague justification delivered by a non-expert (Fisher’s LSD, $p < .05$). Furthermore, the expert under low involvement had a greater positive impact than the expert under high involvement. This pattern of effects was consistent with Hypothesis 4. However, there were some deviations from this prediction. For example, justifications (specific or vague) delivered by the expert under low involvement were not found to be more acceptable than a “specific” justification delivered by a non-expert (Fisher’s LSD, ns). Also, a post hoc test applied to the expertise x involvement interaction revealed no significant difference between the expert and non-expert conditions under low involvement (Fisher’s LSD, ns).

The specificity of the justification was not expected to have a significant impact on acceptability under low involvement. It was expected that there would be a specificity x involvement interaction such that specificity has a positive impact under high involvement, but no impact under low involvement. This interaction effect, however, was not significant [$F(1,165) = 0.003, p < .955$]. Instead there was a main effect of specificity such that a specific justification was more acceptable under both high and low involvement. This effect is illustrated in Figure 4.
Figure 4: The effect of specificity x involvement on justification acceptability
In short, under conditions of higher involvement, specificity had a positive impact on the acceptability of the justification. Expertise unexpectedly had a negative impact on acceptability. As a result, Hypothesis 3 was only partially supported. Under lower involvement, the use of an expert and specificity in the justification appear to be interchangeable. Reliance on an expert trainer and/or a specific justification will lead to greater acceptance than a vague justification delivered by a non-expert trainer (but not when delivered by an expert trainer). Since the specificity had a positive impact under lower involvement, Hypothesis 4 was only partially supported.

**Main effects on acceptability: Justification specificity and trainer expertise.**

Hypothesis 1 stated that “Following a negative outcome, a justification emphasizing specific information for a change in a distributive criterion will be more acceptable to trainees than a justification with less specific (vague) information.” Hypothesis 2 stated that “Following a negative outcome, a justification for a change in the distributive criterion by a trainer with high expertise will be more acceptable to trainees than a justification by a trainer with low expertise.” The results for the main effects are summarized in Table 8.

Results of ANOVA demonstrated that the justification specificity treatment had a significant effect on acceptability \([M_{high} = 4.90, M_{low} = 3.88; F(1,165) = 13.62, p < .000]\). Therefore, Hypothesis 1 was supported.

In contrast, results of ANOVA indicated that the expertise of the trainer failed to have a significant, main effect on acceptability \([M_{high} = 4.29, M_{low} = 4.51; F(1, 165) = \)
0.44, p < .507]. This result was due to the boomerang effect of expertise illustrated in the expertise x involvement interaction discussed above.

**The Relationship between Justification Acceptability and the Dependent Variables**

Within this study, it was expected (Hypotheses 5a - 5c) that the acceptability of the justification would be positively associated with several justice perceptions, including procedural, interactional, and distributive fairness (assessment and outcome). It was expected that justification acceptability would be positively associated with two attitudinal reactions: satisfaction with the task and the trainer (Hypotheses 6a - 6b). Finally, justification acceptability was expected to be associated with several behaviors including commitment to the task, commitment to the trainer, and complaint behavior (hypotheses 7a - 7c). These relationships were assessed using the Pearson correlation coefficients reported in Table 2.

**Justice perceptions.** The Pearson correlation coefficients indicated that procedural, interactional, and distributive fairness (including both assessment and outcome indicators) were all positively related to the acceptability of the justification (r = .77, .22, .75, .25, respectively, p < .01). These relationships indicated that subjects who found the justification to be more acceptable, also perceived the procedures, the way they were treated, and the distributive decision (and the distributive outcomes) to be more fair. Hypotheses 5a, 5b, and 5c were therefore supported.
Attitudinal reactions. Justification acceptability was positively associated with satisfaction with the trainer ($r = .40, \ p < .01$) and satisfaction with the task ($r = .17, \ p < .05$). Hypotheses 6a and 6b were therefore supported.

Behavioral reactions. The acceptability of the justification was positively associated with commitment to the trainer ($r = .32, \ p < .01$) and the task ($r = .21, \ p < .01$). Therefore, Hypotheses 7a and 7b were supported. In addition, justification acceptability was negatively associated with trainee complaints ($r = -.24, \ p < .01$). Hypothesis 7c was supported.

The Mediating Impact of Acceptability on Outcome Variables.

Hypotheses 8 stated that acceptability should function as a mediator between the independent and dependent variables (cf., Shapiro, 1991). In order to formally assess the mediating potential of account acceptability, several analyses were conducted. Consistent with Baron and Kenny’s (1986) recommendations, and the analyses conducted by Shapiro (1991), four analyses were required to determine the mediating potential of justification acceptability. First, a relationship between account acceptability and the dependent variables must be established. Second, a relationship between the independent variables and account acceptability must be demonstrated. Third, there must be a relationship between the independent and the dependent variables. Finally, when the variance associated with acceptability is statistically controlled, the relationship between the independent and dependent variables must be attenuated (for partial mediation) or eliminated (for complete mediation).
The Pearson correlation analyses conducted for Hypotheses 5 through 7 fulfilled the first step of this mediation analysis. As reported above, acceptability was positively related to procedural fairness, interactional fairness, distributive fairness (both assessment and outcome measures), satisfaction with the trainer, satisfaction with the task, commitment to the trainer, commitment to the task, and negatively related to trainee complaints.

In step 2, ANOVA revealed two significant relationships between the independent variables and justification acceptability. First, justification specificity had a significant, positive main effect on acceptability \( F(1,165) = 13.62, \ p < .000 \). Second, the expertise \( \times \) involvement interaction also had an impact on acceptability \( F(1,165) = 9.29, \ p < .003 \). There was a simple main effect for this interaction such that the non-expert’s justification was more acceptable than the expert’s justification under higher involvement (Fisher’s LSD, \( p < .05 \)).

The third step must demonstrate that the specificity main effect, and the simple main effect of expertise under high involvement also impact the other dependent variables (which were shown to be associated with acceptability in step 1). Procedure MANOVA was conducted for this step to establish a significant relationship among the focal treatments and the dependent variables. Appropriate univariate analyses were subsequently conducted.

The multivariate results demonstrated that both the justification specificity treatment \( F(10,156) = 3.57, \ p < .000; \) Wilk’s Lambda = 0.81] and the expertise
treatment under high involvement \[ F(10,156) = 2.51, p < .008; \text{Wilk’s Lambda} = 0.86 \] had a significant effect on the dependent variables. These results are summarized in Table 9. Univariate analyses were then conducted to identify which dependent variables were significantly affected (summarized in Table 10). This analysis revealed that the specificity of the justification had a main effect on procedural fairness \[ F(1,165) = 16.76, p < .000 \], distributive fairness (of the assessment) \[ F(1,165) = 16.51, p < .000 \], trainer commitment \[ F(1,165) = 8.23, p < .005 \], and task commitment \[ F(1,165) = 9.81, p < .002 \]. The simple main effect of expertise under high involvement was significant for procedural fairness \[ F(1,165) = 6.45, p < .012 \], interactional fairness \[ F(1,165) = 5.38, p < .022 \], and distributive fairness of the assessment \[ F(1,165) = 4.06, < .046 \].

The simple main effect results for expertise under high involvement indicate that, the non-expert was perceived to be more fair than the expert in terms of implementing the procedures, how he treated the participants, and in making the distributive decision (assessment). The interactions that illustrate these effects are depicted in Figures 5, 6, and 7.

In sum, it has been demonstrated that justification acceptability is related to all the hypothesized dependent variables (step 1). The specificity of a justification and the expertise of the trainer under high involvement had a significant effect on the acceptability of the justification (step 2). Moreover, specificity had a significant effect on procedural fairness, distributive fairness (assessment), trainer commitment, and task commitment; and the simple main effect of expertise under high involvement had a significant impact on
Figure 5: The effect of expertise x involvement on procedural fairness
Figure 6: The effect of expertise x involvement on interactional fairness
Figure 7: The effect of expertise x involvement on distributive fairness (assessment)
procedural fairness, interactional fairness, and distributive fairness of the assessment (step 3). The final step involves the statistical control of acceptability. If it acts as a true mediator, then the effects reported in step 3 should be reduced or eliminated.

After controlling for acceptability as a covariate, the significance of the relationships for specificity with procedural fairness, distributive fairness (assessment), and task commitment declined somewhat, but remained significant or marginally significant $[F(1,164) = 3.82, p < .052; F(1,164) = 3.77, p < .054; F(1,164) = 6.29, p < .013$ respectively]. This suggests that the impact of a specific justification on perceptions of procedural fairness, distributive fairness, and task commitment is partially mediated by its acceptability, but that it also has either direct effects, or effects mediated through other variables. In contrast, the impact of specificity on commitment to the trainer was eliminated after controlling for acceptability of the justification $F(1,164) = 3.11, p < .08]$. Hence, acceptability of the justification fully mediates the impact of justification specificity on commitment to the trainer.

The mediating effect of acceptability was more apparent with regard to the simple main effect of expertise under high involvement. After covarying acceptability, the significant relationships with procedural, interactional and distributive fairness (assessment) were strongly reduced $[F(1,164) = 0.94, p < .333; F(1,164) = 3.32, p < .07; F(1,164) = 0.07, p < .794$, respectively]. Justification acceptability fully mediated those relationships.
In sum, the specificity of the justification and the expertise of the trainer under high involvement had an impact on fairness perceptions, and commitment behaviors. Moreover, those effects were either mediated or partially mediated by the acceptability of the account. The mediation analysis revealed that specificity of the justification led to increased perceptions of procedural fairness, and distributive fairness (assessment), and greater commitment to the task “especially” if the justification was acceptable. In contrast, a specific justification led to greater commitment to the trainer “only” if the justification was considered acceptable.

In addition, the non-expert trainer under conditions of higher involvement exerted a greater positive impact than the expert on perceptions of procedural, interactional, and distributive fairness (assessment) “only” if the justification provided was acceptable.

Post Hoc Analyses: Significant Relationships that are not Mediated by Acceptability.

The mediation analysis demonstrated that acceptability mediated (or partially mediated) the relationship between communication factors and justice perceptions, attitudes and commitment behaviors. Aside from these findings, there were several significant relationships between the independent and dependent variables that were not mediated by acceptability. These relationships are summarized in Table 7.

The univariate analyses for the specificity x involvement interaction term revealed significant results for task satisfaction \([F(1,165) = 6.74, \ p < .01]\), satisfaction with the trainer \([F(1,165) = 13.26, \ p < .000]\), and interactional fairness \([F(1,165) = 3.80, \ p < .053]\). Post hoc tests conducted within the lower involvement condition revealed that
participants who received a specific justification experienced greater satisfaction with the
trainer, and greater satisfaction with the task, compared to participants who received a
vague justification (Fisher’s LSD, \( p < .05 \)). There was also a tendency for the participants
to feel that they were treated more fairly (i.e., interactional fairness) when given a specific
justification (as opposed to a vague justification) under conditions of low involvement.
This difference, however, was not significant (Fisher’s LSD, ns).

In contrast, when outcome involvement was higher, participants were significantly
more satisfied with the trainer when given a vague, as opposed to a specific justification.
There were no significant differences between the specific and vague justifications on
satisfaction with the task or interactional fairness within the high involvement condition.
These results are depicted in Figures 8, 9, and 10.

The univariate analyses for the expertise x involvement interaction term revealed
significant results for task satisfaction \([F(1,165) = 6.543, \ p < .011]\), and task commitment
\([F(1,165) = 5.08, \ p < .026]\). Post hoc analyses indicated that participants trained by the
expert in the lower involvement condition were more satisfied with the task (Fisher’s
LSD, \( p < .05 \)), and more committed to the task (Fisher’s LSD, \( p < .05 \)) than those trained
by the non-expert. There was no significant difference between the expert and non-expert
trainer’s under high involvement in terms of task satisfaction or task commitment (Fisher’s
LSD, ns). But those participants trained by the non-expert under higher involvement were
more satisfied and committed to the task than those trained by the non-expert under lower
involvement (Fisher’s LSD, \( p < .05 \)). These results are illustrated in Figures 11 and 12.
Figure 8: The effect of specificity x involvement on satisfaction with the trainer
Figure 9: The effect of specificity x involvement on task satisfaction
Figure 10: The effect of specificity x involvement on interactional fairness
Figure 11: The effect of expertise x involvement on task satisfaction
Figure 12: The effect of expertise x involvement on task commitment