INDECISION IN EMPLOYEE SELECTION

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ABSTRACT

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The current study was conducted to uncover the antecedents to indecision in employee selection. Drawing on past research from the consumer decision-making literature, three potential antecedents to indecision were identified. These antecedents were dominance, missing information, and trait indecisiveness. Furthermore, option quality was examined as a moderator of the relationship between dominance and decision deferral. 981 workers from Amazon's Mechanical Turk participated in this study. The results show that there was higher deferral when there were no dominant candidates than when there was a dominant candidate. Moreover, option quality moderated the relationship between dominance and deferral such that dominance affected deferral in decisions between high quality applicants but not in decisions between low quality applicants. In addition, there was higher deferral when there was missing information in the profile of job candidates than when there was no missing information. However, trait indecisiveness did not significantly predict hiring deferral. The study’s implications for research and practice are discussed, and directions for future research are provided.
To my family and friends who have been supportive of my academic achievements.
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TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER 1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>A Model of Indecision in Employee Selection</td>
<td>3</td>
</tr>
<tr>
<td>Antecedents to Indecision</td>
<td>4</td>
</tr>
<tr>
<td>Option Dominance</td>
<td>4</td>
</tr>
<tr>
<td>Missing Information</td>
<td>7</td>
</tr>
<tr>
<td>Trait Indecisiveness</td>
<td>8</td>
</tr>
<tr>
<td>CHAPTER 2. METHOD</td>
<td>11</td>
</tr>
<tr>
<td>Sample and Procedure</td>
<td>11</td>
</tr>
<tr>
<td>Measures</td>
<td>12</td>
</tr>
<tr>
<td>CHAPTER 3. RESULTS</td>
<td>13</td>
</tr>
<tr>
<td>Post-hoc analyses</td>
<td>14</td>
</tr>
<tr>
<td>CHAPTER 4. DISCUSSION</td>
<td>17</td>
</tr>
<tr>
<td>Practical Implications</td>
<td>20</td>
</tr>
<tr>
<td>Limitations and Future Directions</td>
<td>22</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>25</td>
</tr>
<tr>
<td>APPENDIX A. SELECTION SCENARIANS</td>
<td>30</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Intelligence, interview, and work sample ratings for stimulus candidates</td>
</tr>
<tr>
<td>2</td>
<td>Explanation of the configuration of scores</td>
</tr>
<tr>
<td>3</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td>4</td>
<td>Correlations among all variables</td>
</tr>
<tr>
<td>5</td>
<td>Results of logistic regression analysis</td>
</tr>
<tr>
<td>6</td>
<td>Moderating effect of option quality on the relationship between dominance and deferral</td>
</tr>
<tr>
<td>7</td>
<td>Post-hoc analyses</td>
</tr>
<tr>
<td>8</td>
<td>Moderating effect of trait indecisiveness on the relationship between dominance and deferral</td>
</tr>
<tr>
<td>9</td>
<td>Moderating effect of trait indecisiveness on the relationship between missing information and deferral</td>
</tr>
<tr>
<td>10</td>
<td>Moderating effect of trait indecisiveness on the relationship between option quality and deferral</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proposed model</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>Option quality as a moderator of the relationship between dominance and deferral</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>Trait indecisiveness as a moderator of the relationship between dominance and deferral</td>
<td>46</td>
</tr>
<tr>
<td>4</td>
<td>Trait indecisiveness as a moderator of the relationship between missing information and deferral</td>
<td>47</td>
</tr>
<tr>
<td>5</td>
<td>Trait indecisiveness as a moderator of the relationship between option quality and deferral</td>
<td>48</td>
</tr>
</tbody>
</table>
CHAPTER 1. INTRODUCTION

Decision avoidance is a universal phenomenon. Although indecision is often disadvantageous and can work against an individual's goals, people still have a tendency to seek the default inaction option. Recent research on decision avoidance has primarily focused on consumer decision-making (e.g., Tversky & Shafir, 1992; Dhar, 1997; Dhar & Nowlis, 1999; Iyengar & Lepper, 2000). Surprisingly, little research has examined decision avoidance in employee selection. Hiring managers often have to choose among a variety of job applicants. Decisions can be difficult when choosing among several attractive alternatives and may give rise to the preference for choice deferral. In the employment setting, deferral means postponing a hiring decision until other job candidates are available.

Deferral in employee selection deserves our attention because it may be costly for organizations. For instance, consider the following hypothetical example:

The chief financial officer (CFO) of a high-profile organization resigned unexpectedly. The hiring manager faces the task of choosing a suitable candidate for the CFO position. Out of a pool of 10 applicants, he narrows his selection to two outstanding candidates who are equally qualified. Because of their equal qualification, the hiring manager is unable to decide which candidate to select for the position. Consequently, he defers his hiring decision and decides to search for other applicants. To his dismay, a month passes and no suitable candidate steps forward. His indecision has cost the company time, lost productivity, and ultimately money. He regrets not hiring either of the outstanding applicants and settles for hiring a less qualified candidate because the company can no longer afford to have a vacant CFO position.
Through this example, we can see the potentially high costs of indecision. Not only did the hiring manager’s indecision have a high cost for the company, but it also cost the organization the opportunity to hire a highly qualified candidate.

Because of the potentially high costs associated with hiring indecision, it is in the best interest of an organization to develop methods to counter indecision. In order to counter hiring indecision, it is imperative that we first gain a better understanding of the determinants of decision deferral. By having a better understanding of when, why, and how hiring indecision occurs, we can develop effective methods to counter deferral in employee selection. The following section provides a summary of the determinants of decision avoidance.

**Indecisiveness and Decision Avoidance**

Two articles provide insight into the antecedents of decision avoidance (Brooks, 2011; Anderson, 2003). However, the ideas presented in these articles have not been empirically tested. Both authors propose that option quality, option similarity, status quo, and omission bias are antecedents to indecision. With respect to option quality, decisions are avoided when all available options are unacceptable. However, in some cases where the available alternatives are acceptable, decision makers still engage in choice deferral because the options are similar in attractiveness. Systematic biases such as the status quo or omission bias may also influence indecision. The status quo bias is the preference for things to remain unchanged, whereas the omission bias is the tendency to perceive harmful actions as worse than equally harmful omissions.

In addition, Brooks (2011) includes option clarity and trait indecisiveness in her model of antecedents to indecision. If options are unclear or ambiguous, people are more likely to avoid making decisions. Moreover, some individuals are more prone to being indecisive than others.
due to individual differences. Anderson (2003) incorporates anticipated regret, costs of action and change, and selection difficulty in his model of antecedents to decision avoidance. Costs of action may influence decision avoidance because as the cost required to task action increases, inaction becomes a more attractive option (Anderson, 2003). Anticipated regret influences decision avoidant behavior since individuals seek to minimize regret when making decisions (Anderson, 2003). Selection difficulty, the experience of difficulty in choosing a particular course of action, leads to an increase in choice deferral. Contributors to selection difficulty include option set size (Anderson, 2003). Increasing the number of options available may increase a decision maker’s preference for deferral because of an increase in preference uncertainty and a decrease in superior status for dominant options (Anderson, 2003).

Drawing on previous research on decision avoidance in consumer decision-making, this paper seeks to understand why indecision occurs in employee selection. One of the first steps in understanding why decision avoidance occurs in hiring decisions is by building and testing a model that includes potential antecedents to indecision in employee selection.

A Model of Indecision in Employee Selection

My model of indecision in employee selection includes three potential antecedents to indecision derived from ideas presented by Brooks (2011) and Anderson (2003). These antecedents are dominance, missing information, and trait indecisiveness. Figure 1 displays my proposed model. The first antecedent, dominance, is derived from Brooks’ (2011) construct of option similarity. Individuals may be more likely to defer when options are similar in attractiveness than when options are dissimilar. The construct of dominance captures this notion; decision makers are more likely to defer choice when presented with a choice set where neither alternative is dominant than when presented with a choice set with an alternative that is clearly
superior. The second antecedent, missing information, is derived from Brooks’ construct of option clarity. Decision makers have a tendency to avoid selecting options with unknown probabilities. Thus, individuals may avoid making a decision when presented with alternatives that have missing information. Lastly, the third antecedent, trait indecisiveness, is derived from Brooks’ (2003) article; regardless of the situation, some individuals are more prone to indecision than others.

Antecedents to Indecision

*Option Dominance*

Decision makers are more likely to defer choice when presented with a choice set where neither alternative is dominant than when presented with a choice set with an alternative that is clearly superior. For instance, Dhar’s (1997) research on consumer preferences reveals that the tendency for decision avoidance increases when the difference in attractiveness among available alternatives is small. In his study, Dhar used a set of four choice problems to test the effect of choice context on choice deferral. The four product categories used in the study included bookshelf speakers, answering machines, laptop computers, and electric shavers. The researcher manipulated the attribute values such that differences were relatively minor. For instance, with respect to auto-focus cameras, the various cameras had small differences in their shutter speed, focal lengths, and weight. Participants saw either a single option only or in conjunction with a second alternative with minor attribute differences. The preference for the no-choice option increased significantly when a comparable alternative with minor attribute differences was added to the choice set. In summary, this study supports the notion that small attribute differences between comparable alternatives increases choice deferral.
In contrast, a significant difference in attractiveness makes it easier to arrive at a decision. For instance, Huber et al. (1982) demonstrated that the probability of choosing the dominant option increases when a relatively inferior option is present. Similarly, Simonson and Tversky (1992) propose that when a decision-maker is uncertain of which alternative he should choose, the inferior alternative enhances the attractiveness of the dominating option. Lastly, Dhar (1997) demonstrated in a set of consumer decision-making studies that participants immediately select a dominating alternative over an inferior one even when a no-choice option is available.

Deferral is also influenced by conflict. According to the perspective of reason-based choice, conflict emerges when an individual has good reasons for and against each option, or conflicting reasons for competing options (Tversky & Shafir, 1993). Consequently, higher degrees of conflict are associated with an increased likelihood of decision avoidance and the search for other alternatives. In a study on choice under conflict, Tversky and Shafir (1992) presented a group of participants with a scenario in which they pass by a store that is having a one day clearance and see a SONY CD player on sale for just $99. Participants were given the choice of buying the SONY player or to defer their decision and put off the purchase. A second group of participants were given a scenario in which they pass by a store that is having a one day clearance and see a SONY CD player for $99 and an AIWA CD player for $159. They were given the options of buying the AIWA player, buying the SONY player, or putting off the purchase. Results revealed that participants were more likely to put off their decision to purchase a CD player when the AIWA CD player was added to the choice set than when the SONY player was the only available option. In a choice set with both models, the decision maker encounters a conflict between the higher quality AIWA and the economically priced SONY. Consequently, the difficulty of solving the conflict leads people to deferring the purchase.
In addition, Tversky and Shafir conducted another study to counter the alternative explanation that enlarging the choice set increases the tendency to defer the decision regardless of whether conflict is increased. They present participants with the same scenario except they replaced the AIWA player with a less attractive CD player. In contrast to the previous condition, the inferior CD player is dominated by the SONY. Results show that there was no increase in choice deferral. Thus, deferral is greater when neither option is dominant than when an option is dominant. The effect of dominance on decision avoidance has also been demonstrated in a variety of contexts, including apartments (Tversky & Shafir, 1992), real payoffs (Tversky & Shafir, 1992), and medical decisions (Redelmeier & Shafir, 1995). In the context of employee selection, one may expect higher deferral when none of the applicants are dominant. Thus, choice deferral should increase in a choice set with a small difference in attractiveness among the available applicants as opposed to an option set with a large difference in attractiveness among the available candidates.

H1: There is higher deferral when there are no dominant candidates than when there is a dominant candidate.

Option quality may moderate the relationship between dominance and choice deferral. According to the rational theory of search, decision deferral should be chosen when none of the options are attractive or when further search may yield additional benefits (Karni and Schwarz, 1977). Thus, a hiring manager who is presented with a selection of equally unattractive (low quality) applicants should rationally not select any option. Dominance will make a difference in cases of high quality applicants but not low quality. Even in the presence of a dominant candidate, a hiring manager may avoid making a hiring decision if all the candidates are low quality. This conjecture is consistent with Brooks (2011) and Anderson’s (2003) argument that
decision makers might resort to indecision if all available alternatives are unattractive. On the other hand, the presence of a dominating candidate should facilitate a hiring manager’s decision between high quality applicants.

H2: Option quality will moderate the relationship between dominance and deferral such that dominance will affect deferral in decisions between high quality applicants but not in decisions between low quality applicants.

**Missing Information**

Another determinant that may influence indecision is missing information. In one of the earliest studies on missing information, Yates, Jagacinski, and Faber (1978) had participants evaluate the satisfactoriness of hypothetical university courses. Participants were asked to evaluate the identical courses again one week later. However, some of the courses lacked information on one attribute. After comparing evaluations for courses with missing information with the evaluations for the same courses with complete information, Yates and colleagues concluded that the participants devalued alternatives with incomplete information.

Since Yates, Jagacinski, and Faber’s (1978) experiment, similar studies have been conducted in other contexts that show decision makers devalue options that have missing information compared with options that have complete information. In the employee selection context, Stone and Stone (1987) found that job applicants who did not respond to an application question regarding criminal conviction were deemed less suitable for jobs than applicants who reported no convictions. In addition, Jagacinski (1991) reported that participants penalized employees with missing test scores. In the consumer choice context, Johnson and Levin (1985) demonstrated that consumers deal with missing attribute values by purchasing the option that is superior on the common attribute.
In another experiment, Gunasti and Ross (2008) found an association between missing information and decision deferral in the consumer choice context. In their study, the researchers compared the preference for choice deferral when the option sets had alternatives with missing attribute information versus when the option sets had complete information. Participants in the missing information condition were more likely to choose the no choice option than participants in the complete information condition.

These findings collectively suggest that missing information may be associated with choice deferral in employee selection. A hiring manager may exhibit ambiguity aversion in light of missing information in an applicant’s profile. Consequently, the manager’s aversion to ambiguity may lead him to defer his selection decision. Based on the missing information literature, I propose the following hypothesis:

H3: There is higher deferral when there is missing information in the profile of job candidates than when there is no missing information.

Trait indecisiveness

From an individual difference standpoint, there are some people who experience chronic choice difficulty across situations and domains. This problem is known as indecisiveness. Several researchers have referred to the construct of indecisiveness as a trait (Cooper, Fiqua, & Hartman, 1984; Osipow, 1999). Indecisiveness is characterized by long decision-making time, a tendency to delay and avoid decisions, decision instability, and a tendency to regret past decisions (Germij & De Boeck, 2002). It is also associated with less adaptive characteristics such as low self-esteem (Germeijs & De Boeck, 2002), obsessive-compulsive tendencies (Frost & Shows, 1993), perfectionism (Frost & Shows, 1993), neuroticism (Bacanli, 2006), behavioral inhibition (Spunt et al., 2009), and trait anxiety (Fuqua & Hartman, 1983).
Research has shown that indecisiveness can negatively impact a person’s behavior during the decision making process. For instance, experimental studies reveal that indecisive people need significantly more time when making a decision (Ferrari & Dovidio, 2000; Frost & Shows, 1993) and are more selective and less exhaustive when they search for information (Ferrari & Dovidio, 2000; Rassin et al., 2008). In regard to decisions in real life, indecisiveness is a predictor of difficulty in choosing a college major or a career (Gayton, Clavin, Clavin, & Broida, 1994) and problems in daily decision making (e.g. difficulty choosing what to order from restaurant menu or what clothes to wear; Germeijs & De Boeck, 2002).

The most prominent and widely used measure of indecisiveness is Frost and Shows’ (1993) Indecisiveness Scale. In one study, Frost and Shows (1993) invited 15 of the highest and lowest scoring participants on the Indecisiveness Scale to participate in a decision making experiment. The researchers asked participants to choose between 20 pairs of clothes, 20 pairs of college courses, nine pairs of leisure activities, and three meals from a menu. Overall, indecives took significantly longer (837 seconds) than the decisives (523 seconds) to complete the decision making task.

Whereas Frost and Shows’ (1993) research reveals that indecives require more time to make decisions, Rassin and Muris (2005) extends the research on the consequences of indecisiveness by showing that indecives were unable to reach decisions. In their study, participants were asked to evaluate a list of political statements. Indecises were more likely to defer choice by selecting the “do-not-know” option.

The past research suggests that in the employee selection context, hiring managers high on trait indecisiveness may have a tendency to defer hiring decisions. In contrast, hiring
managers low on trait indecisiveness may make a hiring decision with much more ease. Based on this discussion, I propose the following hypothesis:

H4: Regardless of the decision context, there will be higher deferral among individuals who score high on trait indecisiveness than among individuals who score low on trait indecisiveness.
CHAPTER 2. METHOD

Sample and Procedure

The sample consisted of 981 participants from the United States recruited from Amazon’s Mechanical Turk (MTurk). Participants were compensated twenty-five cents for participating in the study. 35.2% of respondents were female, 60.3% were male, and 4.5% did not report their sex. 1.1% of respondents were American Indian, 5% were Asian/Pacific Islander, 3.9% were African American, 4.2% were Hispanic American, and 76.3% were White/Caucasian. Respondents had a mean age of 30 years ($SD = 10.7$), an average organizational tenure of 3.4 (SD = 4.6) years, and worked 31 hours on average ($SD = 16.61$).

The variables of interest that were manipulated are option quality, dominance, and missing information. The research design was a logistic regression with three predictors (dominance, missing information, and trait indecisiveness) and a dichotomous criterion variable (deferral or hire). Participants were assigned to one of eight conditions. Each condition had between 120-125 participants.

Participants were presented with a scenario (see appendix A and B) that asked them to assume the role of hiring manager for Information Enterprises. Furthermore, they were given information regarding the candidates’ intelligence score, interview rating, and work sample score. In all conditions, participants were given a choice between two candidates for the computer programmer position. Participants had the choice of hiring one of the candidates or deferring their hiring decision and search for other applicants. Refer to Table 1 for the configuration of scores for each of the candidates in all conditions. Refer to Table 2 for an explanation of the configuration of scores for all conditions.

**Measures**
Trait Indecisiveness. Trait indecisiveness was assessed using Frost and Shows’ (1993) Indecisiveness Scale. This scale contains 15 items that are answered on a 5-point scale from “strongly disagree” to “strongly agree”. The scale incorporates both delay and decisional difficulty, with items such as “I find it easy to make decisions” and “I always know exactly what I want.” Higher scores represent higher perceived levels of trait indecisiveness. The internal consistency of the scale is satisfactory (α = .87). Please see Appendix C for Frost and Shows’ (1993) Indecisiveness Scale.
CHAPTER 3. RESULTS

Descriptive statistics for all variables is presented in Table 3. Correlations among all variables are presented in Table 4. The logistic regression was performed to test the main effect hypotheses (i.e., hypothesis 1, 3, and 4). Support was found for Hypothesis 1 that there is higher deferral when there are no dominant candidates than when there is a dominant candidate. A test of the full model against a constant-only model was statistically significant, $\chi^2(1, N = 981) = 5.97, p = .02$, indicating that the predictor reliably distinguished between individuals who hired a job candidate and individuals who deferred their hiring decision. The main effect was in the expected direction ($\beta = 0.33, p = .02$). The Nagelkerke $R^2$ indicated that the model accounted for 1% of the total variance. The overall predictive accuracy is 65.5%. Table 5 displays regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for the predictor. According to the Wald criterion, the predictor significantly predicted hiring deferral, $\chi^2(1, N = 981) = 5.95, p = .02$.

To test the moderating hypothesis that option quality will moderate the relationship between dominance and deferral such that dominance will affect deferral in decisions between high quality applicants but not in decisions between low quality applicants, hierarchical logistic regression was conducted. The independent variable (dominance) and moderator (option quality) were entered in the first step of the regression equation, followed by the interaction term (dominance*option quality) in the second step. Support was found for hypothesis 2. A significant interaction between dominance and option quality in predicting decision deferral was found ($\chi^2(1, N = 488) = 7.23, p = .01$), explaining an additional 79% of the variance (Nagelkerke $R^2 = .79$) in decision deferral. The interaction was in the expected direction ($\beta = 3.09, p = .01$). The overall predictive accuracy is 91%. Table 5 displays regression coefficients, Wald statistics, odds ratios,
and 95% confidence intervals for odds ratios for the interaction term. Table 6 displays each step of the regression. Figure 1 displays the pattern of this interaction effect. According to the Wald criterion, there was a significant interaction effect of dominance and option quality on hiring deferral, $\chi^2(1, N = 488) = 6.10, p = .01$.

Support was found for Hypothesis 3 that there is higher deferral when there is missing information in the profile of job candidates than when there is no missing information. A test of the full model against a constant-only model was statistically significant, $\chi^2(1, N = 981) = 22.05, p = .00$, indicating that the predictor significantly distinguished between individuals who hired a job candidate and individuals who deferred their hiring decision. The Nagelkerke $R^2$ revealed that the model accounted for 3% of the total variance. The main effect was in the expected direction ($\beta = 0.64, p = .00$). The overall predictive accuracy is 65.5%. Table 5 displays regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for the predictor. According to the Wald criterion, the predictor significantly predicted hiring deferral, $\chi^2(1, N = 981) = 21.70, p = .00$.

Hypothesis four was not supported. There was no significant main effect of trait indecisiveness on hiring deferral, $\chi^2(1, N = 981) = .07, p = .79$.

Post-hoc Analyses

Because past research and theory has suggested that indecisiveness should be related to decision deferral, additional analyses were performed to further examine the role of indecisiveness in decision deferral. Post-hoc tests explored whether trait indecisiveness had a moderating effect on the relationships between any of the situational independent variables and deferral. To test whether trait indecisiveness moderated the relationship between dominance and deferral such that the relationship would be stronger for individuals high in trait indecisiveness
than for individuals low in trait indecisiveness, hierarchical logistic regression was conducted. A significant interaction between dominance and trait indecisiveness in predicting decision deferral was found ($\chi^2(1, N = 981) = 4.16, p = .04$), explaining an additional 2% of the variance (Nagelkerke $R^2 = .02$) in decision deferral. The interaction was in the expected direction ($\beta = 0.44, p = .04$). The overall predictive accuracy is 65%. Table 7 displays regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for the interaction term.

To test whether trait indecisiveness moderated the relationship between missing information and deferral such that the relationship would be stronger for individuals high in trait indecisiveness than for individuals low in trait indecisiveness, hierarchical logistic regression was conducted. A significant interaction between missing information and trait indecisiveness in predicting decision deferral was found ($\chi^2(1, N = 981) = 6.75, p = .01$), explaining an additional 4% of the variance (Nagelkerke $R^2 = .04$) in decision deferral. However, the interaction was not in the expected direction ($\beta = -0.56, p = .01$). The overall predictive accuracy is 65.8%. Table 7 displays regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for the interaction term. Table 9 displays each step of the regression. Figure 4 displays the pattern of this interaction effect. According to the Wald criterion, there was a significant interaction effect of dominance and trait indecisiveness on hiring deferral, $\chi^2(1, N = 981) = 4.13, p = .04$.

To test whether trait indecisiveness moderated the relationship between option quality and deferral such that the relationship would be stronger for individuals high in trait indecisiveness than for individuals low in trait indecisiveness, hierarchical logistic regression was conducted. A significant interaction between option quality and trait indecisiveness in predicting decision deferral was found ($\chi^2(1, N = 981) = 6.68, p = .01$).
indecisiveness than for individuals low in trait indecisiveness, hierarchical logistic regression was conducted. A significant interaction between option quality and trait indecisiveness in predicting decision deferral was found ($\chi^2(1, N = 981) = 6.74, p = .01$), explaining an additional 62% of the variance ($\text{Nagelkerke } R^2 = .62$) in decision deferral. The interaction was in the expected direction ($\beta = 1.59, p = .01$). The overall predictive accuracy is 83.4%. Table 7 displays regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for the interaction term. Table 10 displays each step of the regression. Figure 3 displays the pattern of this interaction effect. According to the Wald criterion, there was a significant interaction effect of option quality and trait indecisiveness on hiring deferral, $\chi^2(1, N = 981) = 6.51, p = .01$.

To test whether trait indecisiveness influenced deferral among high quality applicants, logistic regression was conducted. A test of the full model against a constant-only model was statistically significant, $\chi^2(1, N = 471) = 3.90, p = .048$, indicating that the predictor significantly distinguished between individuals who hired a job candidate and individuals who deferred their hiring decision. The Nagelkerke $R^2$ revealed that the model accounted for 1% of the total variance. The main effect was in the expected direction ($\beta = .29, p = .048$). The overall predictive accuracy is 68.4%. Table 7 displays regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for the predictor. According to the Wald criterion, the predictor significantly predicted hiring deferral, $\chi^2(1, N = 471) = 3.87, p = .049$. 
CHAPTER 4. DISCUSSION

Although there is extensive research on decision avoidance (e.g., Anderson, 2003), there are still important gaps in the literature. Specifically, very little research has examined decision deferral in employee selection. The purpose of the present study was to address this gap in the decision avoidance literature. Findings showed that the presence of no dominant candidates significantly predicted hiring deferral. This is consistent with past research in the consumer decision-making literature which has examined the effects of dominance on consumer decisions (e.g., Dhar, 1997; Tversky & Shafir, 1992). An explanation for this finding is that small attribute differences between comparable alternatives increases choice deferral (Dhar, 1997). When there are small attribute differences between comparable alternatives, decision-makers have difficulty justifying choosing one alternative over another. The difficulty that decision-makers experience in justifying their choice may ultimately lead to deferral.

Another finding was that missing information significantly predicted hiring deferral. This finding is line with previous research on missing information which showed that decision makers devalue alternatives with missing information compared with alternatives that have complete information (Yates, Jagacinski, & Faber, 1978; Stone & Stone, 1987; Jagacinski, 1991; Johnson & Levin, 1985). My results are also consistent with research in the consumer choice context which showed that missing information predicted decision deferral (Gunasti & Ross, 2008). However, in this study, missing information was always in the form of missing interview ratings. Because I did not assess the impact of missing intelligence or work sample scores on deferral, I cannot be certain whether my findings can generalize to other categories of missing information.

Trait indecisiveness, however, was not related to hiring deferral. This result is in contrast to previous studies that have found a significant relationship between trait indecisiveness and
decision avoidance (e.g., Rassin & Muris, 2005). One explanation for this disparate finding is that context trumps personality. For instance, consider my selection scenario in which participants were presented with two candidates of low option quality. Nearly all participants deferred their hiring decision regardless of whether they scored high on trait indecisiveness. Their deferral is possibly due to the fact that both of the candidates scored low on all the personnel assessments. Consistent with my assertion, studies in social psychology demonstrate that there are particular instances in which the effects of individual differences are contextual. For example, Darley and Batson (1973) conducted an experiment in which they asked seminary students to give a sermon about the “Good Samaritan” at a nearby building. In one condition, the researchers told the subjects that there were already late for the sermon. In another condition, they told the participants that they had several minutes before the sermon began. On the way to giving their sermon, the students passed by a man in an alleyway who appeared to be in need of assistance. The amount of urgency induced in the subjects determined whether or not they offered aid to the stranger.

Furthermore, research suggests that individual differences in decision-making style may have a stronger impact on decision outcomes in weak than in strong situations (Dalal & Brooks, 2013; Meyer et al., 2010; Mischel, 1977). The traditional laboratory setting of experimental psychological research has been considered as a strong situation (Weiss & Adler, 1984). Thus, it is possible that individual differences in decision-making may have less of an influence in the traditional laboratory setting than in laboratory or field settings involving weak situations (Weiss & Adler, 1984). In line with this assertion, trait indecisiveness may not have impacted decision deferral because my study used strong manipulations of the context.
The purpose of the post-hoc tests was to find an explanation for why trait indecisiveness was not significantly related to hiring deferral. The results of the post-hoc tests that explored the effects of trait indecisiveness suggest that this individual difference variable may be context dependent. Thus, an explanation for why I failed to find support for Hypothesis 4 is that trait indecisiveness is related to hiring deferral only in specific contexts. Results show that trait indecisiveness moderated the relationship between dominance and deferral such that the relationship was stronger for individuals high in trait indecisiveness than for individuals low in trait indecisiveness. I expected this interaction to be in the direction predicted because individuals who are indecisive experience greater difficulty in making decisions than individuals who are decisive. Consistent with previous research, indecisives should experience greater selection difficulty when they are given a choice between options with small differences in attractiveness than options with large differences in attractiveness (Dhar, 1997). Lastly, this result is in line with my assertion that the effects of trait indecisiveness are contextual. In addition, trait indecisiveness moderated the relationship between option quality and deferral such that the relationship was stronger for individuals high in trait indecisiveness than for individuals low in trait indecisiveness. I expected this interaction to be in the proposed direction because indecisives should face greater selection difficulty in situations where they have to choose between high quality alternatives than low quality alternatives. In addition, trait indecisiveness moderated the relationship between missing information and deferral such that the relationship was stronger for individuals low in trait indecisiveness than for individuals high in trait indecisiveness. I expected this interaction to be in the opposite direction because indecisives should experience greater decisional difficulty in situations where they have to choose between options with missing information than options with complete information. A possible
explanation for this unexpected finding is that decisives are more risk-averse than indecisives. Therefore, in a choice between options with missing information, decisives are more likely to select the risk-minimizing decision (i.e., deferral) than indecisives. However, future research is needed to determine whether decisives are more risk-averse than indecisives. Lastly, the results of my post-hoc test suggest that trait indecisiveness may affect deferral among high quality applicants. I expected this main effect to be in the direction predicted because individuals who are indecisive may experience greater decisional difficulty in a choice between high quality alternatives than low quality options. The main implication of this finding is that the effect of trait indecisiveness on deferral is context dependent. Thus, an explanation for why I failed to find support for Hypothesis 4 is that trait indecisiveness affects deferral among high quality applicants but not low quality.

In terms of the interaction effects, I found that option quality moderated the relationship between dominance and deferral such that dominance affected deferral in decisions between high quality applicants but not in decisions between low quality applicants. This result is in line with the rational theory of search which states that decision-makers should choose decision deferral when none of the alternatives are attractive or when further search may be beneficial (Karni and Schwarz, 1977). My finding is also consistent with Brooks (2011) and Anderson’s (2003) argument that individuals might resort to choice deferral if all available options are inferior.

Practical Implications

The results from this study have important practical implications for the employee selection process of organizations. Overall, these findings reveal that the antecedents of hiring indecision are dominance and missing information. Although indecision may not be in the best interest of the hiring manager when several attractive applicants are available, it is still a
common occurrence. Thus, a potential dilemma that organizations encounter is that hiring managers may avoid choosing a job candidate when several equally attractive candidates are available. The manager’s selection indecision may be attributed to an over emphasis on comparing the attributes of the available applicants and an under-emphasis on evaluating the potential of any one applicant. In order to avoid making comparisons that may hamper selection decisions, Brooks (2011) recommended that decision-makers should evaluate each alternative separately. In line with this recommendation, Dhar (1997) reported that individuals were more likely to engage in decision avoidance when they considered alternatives simultaneously than when they considered the same alternatives separately. A method for countering indecision in the employee selection context might be having the hiring manager evaluate the viability of each candidate according to a list of knowledge, skills, and abilities that are essential for the position. This method takes away the emphasis of choosing between applicants and shifts the focus on evaluating a candidate based on a set of job relevant characteristics. However, the interaction effect finding from my study suggests that this strategy may only be effective in decisions between high quality applicants but not in decisions between low quality applicants. Regardless of whether there is a dominant candidate, my results suggest that a manager may avoid making a hiring decision if all the candidates are low quality.

My findings also suggest that hiring managers may engage in choice deferral if there is missing information in the profile of job applicants. To counter this problem, I recommend that managers retrieve the missing information directly from the candidates before making a hiring decision. The purpose of my strategy is to reduce the likelihood that a manager will reject an applicant due to ambiguity aversion. This method also prevents a manager from devaluing an
alternative with missing information. Thus, having complete information of candidates will facilitate the hiring decision of managers and reduce their likelihood of deferral.

Limitations and Future Directions

One potential limitation is the present study is too simplistic to capture the nature of selection decisions in organizations. In actual hiring situations, managers are given more information than an applicant's intelligence score, interview rating, and work sample score. The present study omitted important personnel selection relevant information such as an applicant's work experience, education, and KSAOs (knowledge, skills, abilities, and other characteristics). Perhaps the inclusion of these additional sources of information on the candidates may influence deferral. Moreover, in actual hiring situations, a manager’s decision to hire an applicant may be heavily influenced by a manager’s experience and intuition (Highhouse, 2008). Highhouse (2008) argues that practitioners resist using selection decision aids because of their implicit beliefs that it is possible to accurately predict employee success and that the prediction of human behavior is improved through experience. Consistent with this assertion, Lievens, Highhouse, & DeCorte (2005) conducted a laboratory experiment in which they found that managers placed more importance on competencies derived from unstructured interviews than on competencies assessed by structured tests.

With regard to future directions for research, researchers should explore other potential antecedents to indecision in employee selection. For starters, research should examine the effects of option set size on hiring deferral. Research in recent years suggests that there are downsides to having a very large assortment of choices. As the number of available options increases, dominating alternatives lose their superior status. Consequently, decision-makers must prioritize which features of the options are most important to them. This increase in selection difficulty
often leads to decision avoidance (Berger, Draganska, and Simonson, 2007). Moreover, increasing the choice set will subsequently lead to an increase in a decision maker’s cognitive load, potentially leading to cognitive overload (Greenleaf & Lehmann, 1995; Malhotra, 1982). Thus, the choice overload hypothesis predicts that a provision of extensive choices may ultimately be demotivating. This phenomenon has been referred to as the “too-much-choice effect” (Scheibehenne, Greifender, & Todd, 2009). The too-much-choice effect has been replicated in a variety of contexts, including essay topics (Iyengar & Lepper, 2000), chocolate assortments (Iyengar & Lepper, 2000), gift boxes (Reutskaja & Hogarth, 2009), pens (Shah & Wolford, 2007), coffee (Mogilner et al., 2008), and retirement accounts (Iyengar, Huberman, & Jiang, 2004). However, the too-much-choice effect has not been replicated in the employee selection context. Thus, researchers should investigate whether there is higher deferral when there is an extensive selection of applicants than when there is a limited selection of applicants.

Researchers should also examine the mediating mechanisms of the antecedents of hiring indecision. To start, research should investigate whether choice justifiability mediates the relationship between dominance and decision deferral. Decision-makers have more difficulty justifying a choice between applicants that have small differences in attractiveness than a choice between applicants that have a large difference in attractiveness. The difficulty with justifying their selection may lead to decision deferral. Thus, choice justifiability may explain why decision-makers resort to indecision when choosing between options that have small differences in attractiveness. Future research should also examine whether selection difficulty mediates the relationship between missing information and choice deferral. Decision-makers may have more difficulty choosing between candidates with missing information than candidates with no missing information. This selection difficulty may ultimately lead to decision deferral.
(Anderson, 2003). Therefore, selection difficulty may explain why decision-makers are more likely to engage in decision avoidance when choosing between alternatives with missing information than alternatives with no missing information.

Conclusions

In the present study it was found that there was higher deferral when there were no dominant candidates than when there was a dominant candidate. It was also found that option quality moderated the relationship between dominance and deferral such that dominance affected deferral in decisions between high quality candidates but not in decisions between low quality candidates. Lastly, it was found that there was higher deferral when there was missing information in the profile of job applicants than when there was no missing information. These findings expand the literature on decision avoidance by uncovering the antecedents to hiring indecision. This research not only helps researchers better understand the antecedents of employee selection indecision, but it may also help organizations to develop effective methods to counter deferral in employee selection.
REFERENCES


137.


*Behaviour Research and Therapy, 31,* 683-692.


APPENDIX A. SELECTION SCENARIOS

As the hiring manager for Information Enterprises, you may hire one of the two applicants for the computer programmer position. Alternatively, you may choose not to hire any of the applicants and continue searching for other job candidates.

### Intelligence, Interview, and Work Sample Ratings for Stimulus Candidates

<table>
<thead>
<tr>
<th>Condition</th>
<th>Candidate</th>
<th>Intelligence Score</th>
<th>Interview Rating</th>
<th>Work Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Candidate 1</td>
<td>H</td>
<td>MH</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>Candidate 2</td>
<td>H</td>
<td>H</td>
<td>MH</td>
</tr>
<tr>
<td>B</td>
<td>Candidate 1</td>
<td>H</td>
<td>MH</td>
<td>MH</td>
</tr>
<tr>
<td></td>
<td>Candidate 2</td>
<td>H</td>
<td>H</td>
<td>MH</td>
</tr>
<tr>
<td>C</td>
<td>Candidate 1</td>
<td>L</td>
<td>L</td>
<td>ML</td>
</tr>
<tr>
<td></td>
<td>Candidate 2</td>
<td>L</td>
<td>ML</td>
<td>L</td>
</tr>
<tr>
<td>D</td>
<td>Candidate 1</td>
<td>L</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>Candidate 2</td>
<td>L</td>
<td>ML</td>
<td>L</td>
</tr>
<tr>
<td>E</td>
<td>Candidate 1</td>
<td>H</td>
<td>missing</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>Candidate 2</td>
<td>H</td>
<td>missing</td>
<td>MH</td>
</tr>
<tr>
<td>F</td>
<td>Candidate 1</td>
<td>H</td>
<td>missing</td>
<td>MH</td>
</tr>
<tr>
<td></td>
<td>Candidate 2</td>
<td>H</td>
<td>missing</td>
<td>H</td>
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<tr>
<td>G</td>
<td>Candidate 1</td>
<td>L</td>
<td>missing</td>
<td>ML</td>
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<tr>
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<td>L</td>
<td>missing</td>
<td>L</td>
</tr>
<tr>
<td>H</td>
<td>Candidate 1</td>
<td>L</td>
<td>missing</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>Candidate 2</td>
<td>L</td>
<td>missing</td>
<td>L</td>
</tr>
</tbody>
</table>

Decision: In this situation, I would probably:

1. Hire one of the two applicants.
2. Not hire one of the two applicants and continue searching for other job candidates.
APPENDIX B. SAMPLE SCENARIO

Employee Selection 1

2. As the hiring manager for Information Enterprises, you may hire one of the two applicants for the computer programmer position. Alternatively, you may choose not to hire any of the applicants and continue searching for other job candidates.

Candidate 1:

Intelligence Score: High
Interview Rating: Moderately High
Work Sample Score: High

Candidate 2:

Intelligence Score: High
Interview Rating: High
Work Sample Score: Moderately High

In this situation, I would probably:

☐ Hire one of the two applicants.
☐ Not hire one of the two applicants and continue searching for other job candidates.
APPENDIX C. MEASURES

Trait Indecisiveness (Frost & Shows, 1993)

1. I try to put off making decisions.
2. I always know exactly what I want.
3. I find it easy to make decisions.
4. I have a hard time planning my free time.
5. I like to be in a position to make decisions.
6. Once I make a decision, I feel fairly confident that is a good one.
7. When ordering from a menu, I usually find it difficult to decide what to get.
8. I usually make decisions quickly.
9. Once I make a decision, I stop worrying about it.
10. I become anxious when making a decision.
11. I often worry about making the wrong choice.
12. After I've chosen or decided something, I often believe I made the wrong choice or decision.
13. I do not get assignments done on time because I cannot decide what to do first.
14. I have trouble completing assignments because I can’t prioritize what is most important.
15. It seems that the deciding on the most trivial thing takes me a long time.

Items 2, 3, 5, 6, 8, and 9 are reverse scored.
APPENDIX D. HSRB FORM

DATE: February 11, 2013
TO: Christopher Chang
FROM: Bowling Green State University Human Subjects Review Board
PROJECT TITLE: [407022-2] Indecision in Employee Selection
SUBMISSION TYPE: Revision
ACTION: APPROVED
APPROVAL DATE: February 9, 2013
EXPIRATION DATE: January 24, 2014
REVIEW TYPE: Expedited Review
REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of Revision materials for this project. The Bowling Green State University Human Subjects Review Board has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

The final approved version of the consent document(s) is available as a published Board Document in the Review Details page. You must use the approved version of the consent document when obtaining consent from participants. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please add the text equivalent of the HSRB IRBNet approval/expiration date stamp to the "footer" area of the electronic consent document.

Please note that you are responsible to conduct the study as approved by the HSRB. If you seek to make any changes in your project activities or procedures, those modifications must be approved by this committee prior to initiation. Please use the modification request form for this procedure.

You have been approved to enroll 1,000 participants. If you wish to enroll additional participants you must seek approval from the HSRB.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. All NON-COMPLIANCE issues or COMPLAINTS regarding this project must also be reported promptly to this office.

This approval expires on January 24, 2014. You will receive a continuing review notice before your project expires. If you wish to continue your work after the expiration date, your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date.

Good luck with your work. If you have any questions, please contact the Office of Research Compliance at 419-372-7716 or hsrb@bgsu.edu. Please include your project title and reference number in all correspondence regarding this project.
Research on Employee Selection

Informed Consent

Greetings! My name is Christopher Chang. I am a doctoral candidate in the Department of Psychology, Bowling Green State University. You are invited to participate in an online study about employee selection. I will be conducting this study under the supervision of my advisor, Dr. Margaret Brooks. Please note that you must be at least 18 years old to participate in this study.

One purpose of this study is to better understand hiring decisions of managers. This study will be of benefit to you because it may provide you with an opportunity to increase your understanding of employee selection. Those who participate will receive 25 cents in return for their time and effort.

In this study, you will be given an employee selection problem followed by a short survey. It will take approximately between 5 to 10 minutes to complete this study. Upon completion of this study, you will be awarded 25 cents.

Your survey responses will not be shared with anyone and you will remain anonymous. Your data will be stored in a password protected folder and only I will have access to your answers. However, please note that some employers use software that tracks web pages visited and keystrokes made. Therefore, you may wish to complete this survey using a public computer or a personal computer. If you choose to use a public computer, we recommend that you clear your computer’s browser cache and page history after completing the survey in order to protect your privacy.

Your participation in the study is completely voluntary and you may refrain from answering any or all questions without penalty or explanation. You are free to withdraw consent and to discontinue participation in the study at any time. You also have the right to have all of your questions regarding this study answered and you may request a copy of the results. Withdrawing from this study will not impact any relationship you may have with BGSU.

There is minimal risk involved in this study. The risk of participation is no greater than that experienced in daily life.

If you have any questions or comments regarding this study, you can contact me at cchang@bgsu.edu or (419) 372-5627. You may also contact my advisor, Margaret Brooks, at mbrook@bgsu.edu or (419) 372-9389. If you have questions about the conduct of the study or your rights as a research participant, you may contact the Chair of Bowling Green State University's Human Subjects Review Board at (419) 372-7716 or hsr@bgsu.edu.

Thank you for your consideration. Please click the next button to indicate your consent to participate in the study.

Sincerely,

Christopher Chang

BGSU IRB # - APPROVED FOR USE

IRB# # 407022
EFFECTIVE 03/08/2013
EXPIRES 12/04/2014
Table 1. Intelligence, interview, and work sample ratings for stimulus candidates

<table>
<thead>
<tr>
<th>Condition</th>
<th>Candidate 1</th>
<th>Intelligence Score</th>
<th>Interview Rating</th>
<th>Work Sample</th>
</tr>
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<tr>
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<td>Moderately High (MH)</td>
<td>H</td>
</tr>
<tr>
<td></td>
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<td>H</td>
<td>MH</td>
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<td>H</td>
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<td>MH</td>
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<tr>
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<td>H</td>
<td>H</td>
<td>MH</td>
</tr>
<tr>
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<td>L</td>
<td>ML</td>
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Table 2. Explanation of the configuration of scores

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<tr>
<th>Condition</th>
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<td>No</td>
</tr>
<tr>
<td>B</td>
<td>High</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>C</td>
<td>Low</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>D</td>
<td>Low</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
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<td>High</td>
<td>Yes</td>
<td>Yes</td>
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<td>High</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>G</td>
<td>Low</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>H</td>
<td>Low</td>
<td>No</td>
<td>Yes</td>
</tr>
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</table>
Table 3. Descriptive statistics

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<tr>
<th>Variable</th>
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<th>Mean</th>
<th>SD</th>
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<th>Maximum</th>
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<tr>
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<td>1</td>
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<tr>
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<td>--</td>
<td>--</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Deferral (Dominance)</td>
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<td>.62</td>
<td>--</td>
<td>--</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
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<td>.74</td>
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<td>.64</td>
<td>--</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Deferral (Dominance, High TI)</td>
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<td>--</td>
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<td>1</td>
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<td>Deferral (Dominance, Low TI)</td>
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<td>--</td>
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<td>.58</td>
<td>--</td>
<td>--</td>
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<td>Deferral (Missing Information)</td>
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<td>Deferral (No Missing Information, High TI)</td>
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<td>--</td>
<td>--</td>
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<tr>
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<td>--</td>
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<td>1</td>
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<td>Deferral (Low Option Quality, Low TI)</td>
<td>262</td>
<td>1.00</td>
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<td>Deferral (High Option Quality, High TI)</td>
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<td>.35</td>
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<td>.64</td>
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Table 4. Correlations among all variables

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<td>1. Deferral</td>
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<tr>
<td>2. Dominance</td>
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<td>3. Option Quality</td>
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<td>.14**</td>
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<td>.01</td>
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<tr>
<td>5. Trait Indecisiveness</td>
<td>.01</td>
<td>-.07*</td>
<td>.04</td>
<td>-.02</td>
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</tr>
</tbody>
</table>

*Note. *p < .05, **p < .01*
Table 5. Results of logistic regression analyses

<table>
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<tr>
<th>Independent Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald-Chi Square</th>
<th>df</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval for odds ratio</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
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<tr>
<td>Dominance</td>
<td>.33*</td>
<td>.14</td>
<td>5.95</td>
<td>1</td>
<td>1.39</td>
<td>1.07</td>
</tr>
<tr>
<td>Missing Information</td>
<td>.64**</td>
<td>.14</td>
<td>21.70</td>
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<td>1.89</td>
<td>1.45</td>
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<td>Trait Indecisiveness</td>
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<td>.11</td>
<td>.07</td>
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<td>1.03</td>
<td>.84</td>
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<tr>
<td>Dominance*Option Quality</td>
<td>3.09*</td>
<td>1.25</td>
<td>6.10</td>
<td>1</td>
<td>21.98</td>
<td>1.89</td>
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</table>

*p < .05; **p < .01
Table 6. Moderating effect of option quality on the relationship between dominance and deferral

<table>
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<tr>
<th>Independent Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald-Chi Square</th>
<th>df</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval for odds ratio</th>
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</thead>
<tbody>
<tr>
<td>Dominance (Step 1)</td>
<td>1.53**</td>
<td>.40</td>
<td>14.91</td>
<td>1</td>
<td>4.61</td>
<td>Lower 2.12, Upper 10.02</td>
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<tr>
<td>Option Quality (Step 1)</td>
<td>-6.19**</td>
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<td>113.05</td>
<td>1</td>
<td>.00</td>
<td>Lower .00, Upper .01</td>
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<td>Dominance (Step 2)</td>
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<td>1.16</td>
<td>.94</td>
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<td>.33</td>
<td>Lower .03, Upper 3.17</td>
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<td>1.09</td>
<td>50.16</td>
<td>1</td>
<td>.00</td>
<td>Lower .00, Upper .00</td>
</tr>
<tr>
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<td>3.09*</td>
<td>1.25</td>
<td>6.10</td>
<td>1</td>
<td>21.98</td>
<td>Lower 1.89, Upper 255.36</td>
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*p < .05; **p < .01
Table 7. Post-hoc analyses

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<th>df</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval for odds ratio</th>
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<tr>
<td>Dominance*Trait Indecisiveness</td>
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<td>6.51</td>
<td>1</td>
<td>4.89</td>
<td>1.45, 16.56</td>
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<td>1.00, 1.79</td>
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* $p < .05$; ** $p < .01$
Table 8. Moderating effect of trait indecisiveness on the relationship between dominance and deferral

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<th>Wald-Chi Square</th>
<th>df</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval for odds ratio</th>
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<td>Dominance (Step 1)</td>
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<td>.15</td>
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<td>.84</td>
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<tr>
<td>Dominance*Trait Indecisiveness (Step 2)</td>
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*p < .05; **p < .01
Table 9. Moderating effect of trait indecisiveness on the relationship between missing information and deferral

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<th>df</th>
<th>Odds Ratio</th>
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<td>1.84</td>
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<td>.57</td>
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<td>(Step 2)</td>
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*p < .05; **p < .01
Table 10. Moderating effect of trait indecisiveness on the relationship between option quality and deferral

<table>
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<th>Wald-Chi Square</th>
<th>df</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval for odds ratio</th>
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<td>Lower</td>
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<tr>
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<td>4.89</td>
<td>1.45</td>
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*p < .05; **p < .01
Figure 1. Proposed model.
Figure 2. Option quality as a moderator of the relationship between dominance and deferral.
Figure 3. Trait indecisiveness as a moderator of the relationship between dominance and deferral.
Figure 4. Trait indecisiveness as a moderator of the relationship between missing information and deferral.
Figure 5. Trait indecisiveness as a moderator of the relationship between option quality and deferral