

EXAMINING THE “LIABILITIES” OF NEWNESS AND SMALLNESS WITH
RESPECT TO THE RECRUITMENT PROCESS:
PERCEPTUAL BIASES RELATED
TO NEW VENTURES

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ABSTRACT

In this dissertation, I use a two-part study to examine, firstly whether preconceived notions, or perceptual differences, exist about organizational characteristics between firms based on size and age, and secondly what the relative salience of each characteristic is as well as possible individual-organizational characteristic interactions.

In addition to contributing to theoretical knowledge-building, and providing guidance to practitioners, I use a methodology that has not been used extensively in organizational behavior research – conjoint analysis. Thus, the contributions I make are theoretical, normative and methodological in nature.

As hypothesized, there are significant differences in how job seekers perceive organizations based on their size and age. Further, the extent to which an organization is perceived to be Boy Scout (e.g., attentive to people, personal and friendly) is significantly more important than any other characteristic to job seekers when assessing fit with an organization or job.

DEDICATION

To Jenny, who stayed patiently by my side, giving me love, laughter and the occasional kick in the pants through this longer-than-expected journey. To Emmanuel, who joined the journey partway and became the inspiration for the perspiration. To my family and friends who gave me support, welcome distractions and motivation. To my colleagues and professors at Temple, for their career and writing advice. To my dissertation committee for their guidance and support. Thank you to everyone who was part of this process. There were times I wasn't sure I'd make it, and if it weren't for all of you, I wouldn't have. Thank You. Thank You. Thank You.

TABLE OF CONTENTS

ABSTRACT	ii
DEDICATION	iii
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER 1. INTRODUCTION	1
CHAPTER 2. LITERATURE REVIEW	13
Signaling Theory	13
Person-Environment Fit	14
Person-Organization Fit (POF).....	15
Person-Job Fit (PJF)	16
Exemplary Recruitment Research Integrating Signaling Theory and/or Person-Environment Fit	19
Recruitment and the Resource-Based View	20
Individual Attributes	21
Personality	21
Big Five Trait Taxonomy	22
Values	24
Materialism and Postmaterialism.....	25
Organizational Attributes	28
Organizational Size and Age.....	28
Organization Personality	30
Defined Tasks and Roles	35
CHAPTER 3. METHODS	40
Sample and Data Collection	40
A Note on the Use of a Student Sample and External Validity	41
Part 1 – Differential Perception of Organizational Attributes	43
Procedure.....	43
Pilot Study.....	43
Semantic Differential Scales	43
Measures.....	47
Organization Personality.....	47
Defined Tasks and Roles.....	48
Organizational Attributes.....	49
Individual Attributes	49
Control Variables.....	49

Results	49
Organizational Attribute Means by Organization Type.....	50
Part 2 – Salience of Organizational Attributes with Respect to Perceived Fit.....	51
Conjoint Analysis	51
Policy Capturing vs. Direct Estimation.....	52
Why Use Conjoint Analysis?	53
Experiment Design.	54
Measures.....	57
Materialism and Postmaterialism.....	57
Individual Personality Dimensions.....	57
Person-Organizational Fit.	59
Person-Job Fit.	59
Procedure.....	59
Results	60
Step 1, One-Way ANOVA, POF.	63
Step 2, Random Coefficient Regression Model, POF.	64
Estimation of fixed effects (with robust standard errors)	67
Estimation of variance components.....	67
Step 3, Intercepts-As-Outcomes Model, POF.....	69
Estimation of fixed effects (with robust standard errors)	71
Estimation of variance components	71
Step 4, Slopes-As-Outcomes Model, POF.	71
Estimation of variance components.....	74
Step 1, One-Way ANOVA, PJF.	81
Step 2, Random Coefficient Regression Model, PJF.....	81
Estimation of fixed effects (with robust standard errors)	82
Estimation of variance components	82
Step 3, Intercepts-As-Outcomes Model, PJF.	83
Estimation of fixed effects (with robust standard errors)	84
Estimation of variance components.....	84
Step 4, Slopes-As-Outcomes Model, PJF.	84
CHAPTER 4. DISCUSSION AND CONCLUSIONS.....	88
Limitations.....	91
Directions for Future Study	94
Conclusions.....	94
REFERENCES CITED.....	96
APPENDIX A.....	111

Semantic differential scale	111
Scale design	111
Online version of Semantic Differential Scale	112
APPENDIX B	113
Author-Created Measures.....	113
Exposure to New Ventures	113
Exposure to Large, Established Ventures	113
Defined Tasks and Roles	113
APPENDIX C.....	114
Conjoint Analysis Attributes	114
Design Index from Hahn and Shapiro (1966; plan 6b).....	115
Master Plan 5 from Hahn and Shapiro (1966).....	115

LIST OF TABLES

Table 1. Hypotheses	37
Table 2. Internal Reliability Analyses	49
Table 3. Paired Sample T-Tests	50
Table 4. Random Coefficient Regression Model Tests, POF	67
Table 5. Intercepts-As-Outcomes Model Tests, POF	71
Table 6. Slopes-As-Outcomes Model Tests, POF	74
Table 7. Omega Squire(Ω^2) for Person-Organization Fit Variables	80
Table 8. Random Coefficient Regression Model Tests, PJF	82
Table 9. Intercepts-As-Outcomes Model Tests, POF	84
Table 10. Slopes-As-Outcomes Model Tests, POF	86
Table 11. Omega Squire(Ω^2) for Person-Organization Fit Variables	87

LIST OF FIGURES

Figure 1. Research Model.....	12
Figure 2. Value Sets.....	27
Figure 3. Research Model Showing Hypothesized Relationships.....	38
Figure 4. Data Reorganization	62
Figure 5. Innovativeness X Openness	75
Figure 6. Dominance X Materialism	76

CHAPTER 1. INTRODUCTION

It has long been said that there is a recruitment battle (Borgman 1973) or “*war for talent*” (Chambers et al. 1998; Trank, Rynes, and Bretz 2002) whereby firms are fighting for the best possible employees and a firm’s success could ensure its prosperity while losing this figurative war could result in its literal demise.

Unintentional signals sent by employers to potential employees may impact the recruitment process (Breugh and Starke 2000); this contention is supported by Highhouse and Hoffman (2001) who suggested that a variety of signals that are unintentionally emitted by an organization can influence attraction and job choice through indirect information cues. Slaughter et al (2004) contend that the manner in which an organization’s personality is perceived by potential applicants could impact that organization’s attractiveness. Further, new ventures are said to suffer from the liabilities of newness and smallness (Brüderl, Preisendörfer, and Ziegler 1992). Clearly, signals, such as those brought up by Breugh and Starke, are being sent to job seekers who recognize that a venture is new and small. In the context of recruitment, key research questions include: *what are these signals?* and *what might their impact on the recruitment process be?*

While it may be common to attribute economic power and influence to larger firms, it is in fact smaller businesses that drive economic growth, generate jobs and produce the majority of innovations. Small businesses are credited with avoiding a sharp increase in unemployment during economic downswings by creating jobs that offset the layoffs by traditional “big-business” employers (Baron and Markman 2000) – for instance between 1994 and 1998, small business-dominated industries provided

11.1 million new jobs, virtually all of the new jobs created during that time period (United States Department of Labor 2010). Attesting to their importance, in the United States, small businesses hire 40% of high tech workers, make up 97 percent of all identified exporters, represent over 99% of all employer firms and produce 13 times more patents per employee than large patenting firms with those patents being twice as likely as large firm patents to be among the one percent most cited (U.S. Small Business Administration 2010). In addition, small businesses are the most likely to generate jobs for young workers, older workers and women, provide more than two-thirds of “first jobs” and produce 55% of innovations (United States Department of Labor 2010). Thus, while research that has focused on larger firms has provided us with a useful theoretical base, it is clear that research examining the unique challenges facing smaller firms is both required and useful.

Further, examining the impact of size contributes to the understanding of the role of fit in organizational staffing by extending existing research which has been conducted in larger organizational settings. For instance, Barber et al. (1999) used size as a key variable, from the organizational perspective examining the effects of size on hiring practices and from the individual perspective examining its effect on job search behavior. Their research found that many job seekers have preferences regarding firm size and will actively seek employment to a significantly greater extent with the size of firm they prefer, and that job applicants engage in job search practices compatible with the recruitment practices of the type (ie., size) of firm they prefer (Barber et al. 1999). While job seekers have preferences regarding firm size, it is still unknown what about a firm’s size differentially appeals to job seekers. With this

research I attempt to bridge this gap somewhat by examining organization personality factors as they are perceived to vary, not only by firm size, but also by firm age.

Extending existing research by using size and age as key variables, and notably examining the effects of firm size and firm age from the individual job-seeker's perspective, the boundary conditions of existing staffing and environmental fit research can be tested and expanded upon. Interaction between small business management/entrepreneurship and human resource management research has been advocated by many researchers. For instance, Barrett and Mayson (2006) appeal for a greater convergence of human resource management and entrepreneurship research to help further understanding of how well theories of HRM apply to new and/or small ventures and others have proclaimed: "Small and medium sized enterprises (SMEs) have been treated as second class citizens by authors in the human resource management literature for too long" (Tansky and Heneman 2003, 299).

The resources of the firm, including human capital, are frequently shown to be among the most important predictors of growth and performance of new firms (Baum, Locke, and Smith 2001; Gilbert, McDougall, and Audretsch 2006) and employment growth is one of the most commonly used measures of new venture performance (Shepherd and Wiklund 2009). An entrepreneur rarely works alone, sooner or later, ventures require additional human capital (Jack, Hyman, and Osborne 2006). Furthermore, studies have shown that larger firms tend to be more likely to survive (Short et al. 2009). This suggests that finding and recruiting new employees is clearly an important challenge for new firms, and practitioners agree: a recent study presented results of a survey of Australian SMEs and nearly 70% of the firms

involved were “very concerned” about their ability to attract appropriate staff (Mayson and Barrett 2006), while recruitment has been considered challenging for small organizations (Gupta and Tannenbaum 1989) due to limited financial and material resources and the high number of jobs where employees typically perform multiple roles with unclear boundaries and job responsibilities (May 1997) and nearly a quarter of small businesses view a lack of qualified workers as a threat not only to their plans to grow and expand, but as more importantly a threat to their very survival (Mehta 1996). However, the great majority of articles addressing recruitment, personnel selection, human resources and hiring issues focus on, or used for their sample, medium or large sized businesses (Williamson 2000). As Heneman et al. (2000, 12) lament, “human resource theory and the research being conducted may not be congruent with the actual human resource issues challenging [small and medium sized enterprise] practitioners in the field.”

There exist key differences between smaller, newer businesses and larger, established ones when it comes to acquiring human capital; for instance, small and new firms face unique challenges with regard to the attraction and selection of new employees and may also be at a disadvantage in their ability to offer compensation packages, and thus attract employees (Klaas, McClendon, and Gainey 2000). A recent review of the literature on the subject of employment and entrepreneurship noted that there are “key HR challenges in emerging ventures, including establishing firm identity and legitimacy, attaining critical skills and capabilities, maintaining flexibility and developing sustainable practices” (Cardon and Stevens 2004, 297). These differences indicate that research examining challenges unique to smaller,

newer organizations is both required from a practical standpoint, and also in order to broaden the theoretical validity of recruitment research conducted in larger organizational settings and not to make a potentially fatal assumption that findings from large enterprises are equally adaptable to smaller, newer ventures.

Small firms differ from their larger counterparts in various ways, with competitive behavior (Chen and Hambrick 1995), top management team characteristics (Weinzimmer 1997) and the use of internet recruiting (Hausdorf and Duncan 2004) being some examples. However, research showing the extent to which individuals perceive a difference in characteristics between firms by size is limited, with one exception being in terms of safety practices (Gillen et al. 2004) and Greenhaus Sugalski and Crispin's (1978) study which took an expectancy approach to predict organizational attractiveness and job choice activities between small and large firms. The study I conducted helps to provide further information on the perceptual differences individuals – in this case, job seekers – find between organizations based not only on size, but on age as well.

A key consideration for the research I propose is whether there exists a perceptual bias amongst individuals with respect to entrepreneurship. The fact that business students are taught courses in “Small Business Management” and “Entrepreneurship” and that organizations such as the United States Small Business Administration and its counterparts in other nations exist, whereas there is no “Large Business Administration” or courses taught in “Large Corporation Management” implies that there are differences between organizations based on their size and newness, but whether this translates to a bias, positive or negative, is unclear. The

research I conducted has been designed to illuminate some perceptual biases that may exist and help to clarify the impact of these biases.

It is accepted that organizations face different circumstances, challenges and assumptions based on their size and age. However, little research has been done to examine how job-seeking individuals' perception of organizations based on their size and age impact their intention to seek employment with an organization. This is despite the fact that staffing, compensation and reward issues appear to be most relevant to CEO/founders of high growth small and medium sized enterprises (Heneman, Tansky, and Camp 2000).

Because smaller and/or newer ventures are vital to our economy combined with the aforementioned differences in human capital acquisition and the critical nature of acquiring human capital, it is of great importance to continue to examine various ways in which smaller, newer organizations are challenged in the recruitment avenue.

This leads to the main research questions I try to answer in the course of this research: **(1)** Do individuals perceive organizations to differ on key organizational attributes, such as organization personality, based on firm age and size? **(2)** What organizational attributes are most salient to job seekers? **(3)** Are new ventures disadvantaged when attracting new job seekers? **(4)** Do certain applicants perceive a better fit with new ventures? If so, who?

If individuals perceive organizational characteristics on key attributes differentially based on organizational age and size, what impact does this have on perceived person-organization and person-job fit and consequentially on recruitment

for new ventures? What impact do these perceptions have upon organizational attraction? Are the attributions of newness and smallness in fact liabilities? Even if individuals perceive organizational characteristics differentially, calling them liabilities infers a negative bias. Individuals may consider new ventures to be lacking in key resources, unable to pay equitable salaries and provide sought-after benefits, or simply be too unstable to reflect employment security. In this case, young age and small size would be clear liabilities.

But is it not possible that newness and smallness send positive signals to would-be employees? Could these characteristics be interpreted not as liabilities, but as assets? Individuals might see great chances for professional advancement, greater organizational flexibility and less red-tape and other negative connotations of bureaucracy which is often associated to large firms. The extent to which new ventures' unintentional signals are interpreted as positives or negatives will surely have significant ramifications for perceived person-organization and person-job fit. Recent research on brand image and organizational personality (Slaughter et al. 2004; Anderson, Haar, and Gibb 2010) has shown that inferences made by individuals of organizational personality traits affect those individuals' attraction to and perceived fit with those organizations.

The research I have conducted has theoretical, practical and methodological contributions. Firstly, this research will extend existing fit, staffing and organization personality research to a domain where it has been scarce and needed. By expanding the theoretical implications of the aforementioned research topics, the research proposed within contributes to a furthering of knowledge. The research proposed

within makes specific theoretical contribution to the nascent organization personality domain by expanding its application from examining existing large firms to ascertaining personality perceptions based on firm size and age irrespective of other attributes that may be inferred of existing companies. This contribution is significant because of the importance organization personality perceptions can have in the recruitment process (Slaughter et al. 2004; Anderson, Haar, and Gibb 2010), and it helps to answer the repeated calls for theory-building and research at the intersection of HRM and entrepreneurship (e.g., Hornsby and Kuratko 1990; Baron 2003; Mayson and Barrett 2006; Tansky and Heneman 2003; Heneman, Tansky, and Camp 2000).

Using the resource-based theory of the firm (Barney 1991, 1996, 2001), it has been postured that the human capital pool can be viewed as a source of sustained competitive advantage (Wright, Dunford, and Snell 2001; Wright, McMahan, and McWilliams 1994) as an organization's human assets can be considered unique bundles of resources that competitors cannot imitate (Coff 1997). In light of this, attracting high quality employees can make a significant difference in the performance of a firm – a consequence of the war for talent. A resource-based approach focuses on difficult or costly to imitate attributes of a firm as sources of economic rents and, therefore, as the dominant drivers of performance and competitive advantage, “According to this perspective, a firm's ability to attain and keep profitable market positions depends on its ability to gain and defend advantageous positions in underlying resources important to production and distribution” (Conner 1991, 121-122).

A classical definition suggested that entrepreneurship involves the “*processes* of discovery, evaluation, and exploitation of opportunities,” (Shane and Venkataraman 2000, 218 [*Italics in original*]) and Conner (1991, 133) noted, “in a resource-based view, discerning appropriate inputs is ultimately a matter of entrepreneurial vision and intuition.” For firms of all sizes, then, the recruitment and selection process is effectively an entrepreneurial activity. The discovery, evaluation and exploitation of opportunities in the labor market in a hostile, competitive environment of a ‘war for talent’ constitutes a vital element in attaining competitive advantage and, subsequently, greater performance.

A firm's past history (i.e., 'resource endowment') is considered an internal constraint on inputs able to generate rent. In this context, a firm's reputation (i.e., an intangible information resource) or signals thereof can be thought to constrain the attainment of rent-generating resources (Conner 1991), such as human capital. It is likely that individuals' perceptions of organizations by size and age will impact their employment choice and thus could have significant implications for the nature of resource combinations between newer, smaller firms and larger, established firms.

In the research I conducted, I suggest that firm size and age will have a significant effect on organization personality perception and thus, also in the recruitment process – a process that is vital in allowing a firm to acquire the employees that contribute to organizational success (Pfeffer and Veiga 1999).

This expanded knowledge base has practical implications as well; the challenges facing new ventures have been espoused by many researchers, with some suggesting that only 10% of all ventures ever achieve growth (Aldrich 1999).

Organization attraction is vital in the recruitment context (Rynes and Barber 1990), and it has been suggested that an inability to attract suitable candidates to an organization is a key factor leading to organizational failure (Barber and Roehling 1993). Extending this line of research in a new venture setting is valuable not only from a theoretical perspective, but may also provide practitioners with insights valuable for staffing their ventures. If job seekers perceive there to be differences in key organizational attributes based on firm size and age, then understanding what these perceptions are can allow practitioners to manage their firms' image as may be appropriate to increase job seekers' attraction to their organizations (Gatewood, Gowan, and Lautenschlager 1993). Evidence shows that actions once the recruitment process has begun have little impact on job seekers' perceptions of firms (Powell and Goulet 1996; Turban 2001). An understanding of aspects that impact image perception, such as organization personality trait inferences, can only serve to help practitioners manage their images and reputations as they may be appropriate before engaging themselves in the recruitment process at which point it may be too late to take corrective action.

A further contribution is the introduction of conjoint analysis (Gustafsson, Herrman, and Huber 2001; Green and Srinivasan 1978) as a methodological tool in recruitment research. Long used in the marketing and consumer decision making domains (Green and Srinivasan 1990), this methodology has great potential to enable deeper understanding of the salience of various organizational attributes when it comes to organizational attraction and the intent to apply for a job. Marketers have frequently used conjoint analysis to understand the relative importance of various

attributes of a product on consumers' behavior; this research views job seekers as the consumers in the job market, and organizations are the analogous product being examined – instead of attributes like color, packaging and price, organizations have many attributes, such as organization personality dimensions, that job seekers consider when they are in the job market. The research I propose examines some of these attributes and their relative impact on job seekers' fit perceptions.

A call to link the marketing and recruitment literatures has been made previously, with both practitioners (e.g., Hanigan 1994) and researchers (e.g., Breugh 1992) encouraging organizations to consider qualified job seekers as consumers in a market of possible employers. In both recruitment and marketing functions, firms compete to attract a limited set of individuals (Cable and Turban 2001), and the use of conjoint analysis in consumer behavior is commonplace. Despite calls for research methods incorporating multi-attribute utility analyses, such as conjoint analysis, in a human resource management context (Roth and Bobko 1997), its empirical use is rare. Despite an extensive literature search for human resource management research using conjoint methodology, I was able to locate few published articles making use of this technique, with exceptions being the hiring preferences of Hong Kong employers across five important personality attributes of candidates (Moy and Lam 2004), and a study examining personnel selection in the German IT industry (zu Knyphausen-Aufseß and Vormann 2009). As of yet, no research examining recruitment from job seekers' perspectives appears to make use of conjoint methodology.

Given the strong relationship between consumer and organizational behavior, especially in a recruitment context, introducing conjoint analysis provides not only an underused methodology, but a proven method to examine consumer (i.e., job seeker) decisions as they occur – a key element of conjoint analysis is that it is specifically designed to assess respondents’ ‘theory in use’ by capturing respondents’ preferences as they make decisions (Lohrke, Holloway, and Wooley 2010).

The model for this research is shown in Figure 1. The relationship between key organizational attributes and perceived fit is posited to be moderated by individual (job seeker) attributes.

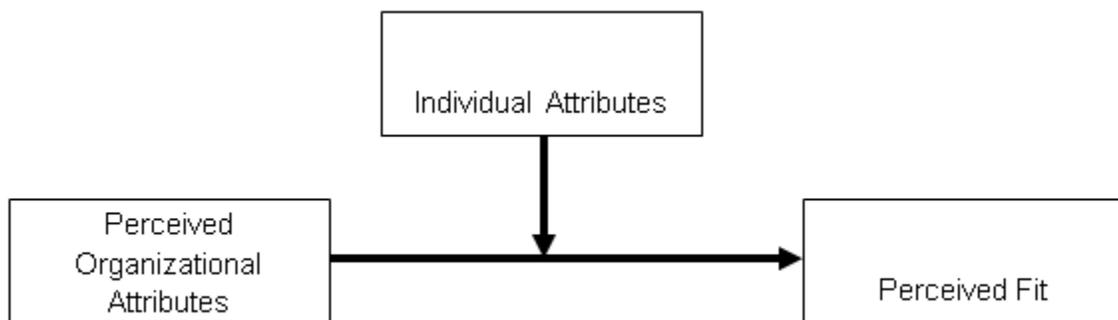


Figure 1. Research Model

In the following sections, I first perform a detailed literature review and present hypotheses for empirical testing relating them to the model I have just introduced. Subsequently, I discuss the methods which will be used in the proposed research.

CHAPTER 2. LITERATURE REVIEW

In this section, I will examine the main theoretical constructs supporting my model and develop hypotheses to be tested in this study.

Signaling Theory

The concept of signaling as an information transferring mechanism has been examined in great deal since Spence (1973) first clarified this construct as a means through which information is transferred in any market featuring incomplete information. Spence (1973, 2002) and many who followed (e.g., Salop and Salop 1976; Lippman and McCall 1976; Coff 1997) used the labor market to build and test propositions around signaling theory, as the job market is considered “the paradigm case of the market” (Spence 1973, 356) featuring numerous signalers who do not invest in acquiring signaling reputations. Whereas the aforementioned research focused on the signals being sent by job seekers, I contend that organizations send signals through their size and age as well.

Signals can be further understood to comprise two types: indices and signals. Indices are those observable attributes generally considered to be fixed or unalterable, while the term ‘signals’ is reserved for those observable characteristics that are subject to manipulation. In an organizational context, age and size would be considered indices because they are generally fixed. While these attributes do change, these changes are generally speaking organic, and not subject to manipulation in the same manner as organizational personality perceptions could be through the strategic use of brand or corporate image management (Gatewood, Gowan, and Lautenschlager 1993).

Person-Environment Fit

Fit can be conceptualized along two dimensions: supplementary and complementary fit. Supplementary or congruent fit occurs where an individual supplements existing characteristics in their environment, thus providing another brick in a homogeneous environmental wall (Muchinsky and Monahan 1987; Kristof 1996). Complementary fit, on the other hand, exists when an individual adds to an environment what it is missing – being a necessary piece in the environmental puzzle adding heterogeneous characteristics (Kristof 1996; Muchinsky and Monahan 1987). Fit can further be understood using a needs-supplies vs. demands-abilities dichotomy. Fit can be achieved when elements of the environment meet an individual's desires (i.e., needs-supplies) or when the environmental requirements match that which an individual brings into the relationship (i.e., demands-abilities).

Recognizing the dual dimensionality of fit, I adapt Kristof's (1996) definition of fit which encompasses these dimensions, "*The compatibility between people and [their environment] that occurs when: (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both*" (Kristof 1996, 4-5).

A recent examination of how fit is examined suggests that fit can also be broken into atomistic, molecular or molar approaches to fit, each of which represent a distinct, but related construct (Edwards et al. 2006). An atomistic approach measures relevant perceived individual and organizational aspects separately and combines these in some manner to represent fit, while molecular and molar approaches assess perceived discrepancies or similarities respectively between person and environment.

The research I am proposing is a molar approach, using survey items that have been validated in previous studies as further explained in the Methods section.

Schneider and colleagues (1995) put forth that fit is a feasible construct at various levels of analysis. Similarly, recruiting research has recognized the multi-faceted nature of fit. The company with which an individual is considering employment is an oft-examined area of fit research, representing person-organization (POF; Kristof 1996; Westerman and Cyr 2004; Kristof-Brown 2000) fit. Person-job (PJF; Edwards 1991; Edwards and Harrison 1993) fit is the other most frequently reviewed fit construct in the context of organizational attraction and represents an individual's compatibility with the potential job itself and the tasks inherent in that job.

Person-Organization Fit (POF)

To examine person-organization fit in a new venture context, it is important to examine the unique characteristics of a new venture, including organizational size and age, and the signals these characteristics send, as they impact perceived POF from the viewpoint of the individual job-seeker.

As discussed earlier, fit can be measured on two dimensions, supplementary and complementary fit. Because individuals tend to prefer to work with people demographically more like themselves, it could be that in terms of personality characteristics, individuals will be more attracted to firms that they perceive to be comprised of similar individuals, thus illustrating the importance of supplementary needs fit from the needs-supplies perspective. Previous research has shown that individuals are more attracted to organizations that are similar to them in terms of

organizational values and goals than to organizations that are dissimilar (Rentsch and McEwan 2002). Research able to replicate those results in a new venture setting will add to our understanding of these issues.

In terms of knowledge, skills and abilities, it is possible that individuals will sense their unique contributions could give them a type of competitive advantage when compared to their potential co-workers. If employees have a unique set of KSAs, thus fitting an organization in a complementary manner, they may feel as though they would be harder to replace, thus giving them a greater sense of job security. The extents to which prospective employees are able to ascertain this fit through the signals sent out by a new venture are uncertain. Future research able to parse personal characteristics from skills and attributes interpreted in these messages would be valuable in this respect.

Person-Job Fit (PJF)

Research that broached the subject of person-job fit in a new venture context tended to discuss the “job” of entrepreneur or new venture founder (Schjoedt 2007) and was more in line with person-vocation (PVF; Holland 1977, 1985) fit than PJF research.

Often examined in tandem with person-organization fit, person-job fit is another distinct construct (Kristof-Brown 2000) impacting the hiring process from both the individual and organizational perspective. The needs-supplies side of PJF, that a job provides an individual with qualities they desire (e.g., autonomy, responsibility, challenge, etc.), is most likely to impact individuals’ perceptions as to whether they feel compatibility with the job. In the realm of staffing, this

compatibility, or fit, has shown various empirical outcomes such as attraction to an organization and intention to accept a job offer from an organization (Carless 2005).

One purpose of this study is to challenge the assumption that research findings from large organizations apply evenly to new ventures as they do to established organizations. There is evidence that smaller or newer ventures do not have the traditional human resource practices in place that larger, established organizations have (Heneman, Tansky, and Camp 2000). For instance, Hanks and colleagues (1993) found that only later in an organization's life cycle, at maturity, along with greater size came greater formalization of human resources practices.

The very nature of person-job fit, from either the individual or organizational perspective, suggests a comparison between the characteristics of an individual as they relate to a given job. In new and/or small ventures, given jobs do not appear to exist in the same manner as they do in established organizations; role ambiguity is prevalent due to a lack of structure and design (May 1997). Levesque (2001) found that in start-up companies, roles do not exist before individuals are hired and "there is typically very little written documentation to rely on to understand roles, structure or role expectations" (Levesque 2001, 2). These findings suggest that in a new venture, it may be impossible for job seekers to determine compatibility with a job when the nature of the job itself evolves with the individual's tenure in the organization. Though Levesque's study was conducted with a high-tech industrial sample, it remains one of the only empirical pieces examining PJF in a new venture setting. Because of the paucity of research in PJF in a new venture setting, it is impossible to say whether an assumption of unclear job descriptions is appropriate across all new

venture settings. But the evidence, however anecdotal, seems to suggest that this is an acceptable assumption upon which to found further confirmatory research. For instance, this assumption appears to be appropriate when dealing with growth-oriented founders; these founders were not concerned with traditional staffing procedures, but rather “concern was instead expressed about matching characteristics of the person other than KSAs to the values and culture of the organization” (Heneman, Tansky, and Camp 2000, 18), indicating a bias toward POF from the viewpoint of the hiring organization. Supporting this assertion, Levesque (2001) argued that in new ventures, the organization may forego optimal PJF in an attempt to obtain and keep a good employee. The extent to which job seekers are willing to make this trade-off is unclear and will be examined in the second study as described in the Methods section of this paper.

The literature on staffing has indicated that individuals do, in fact, distinguish between perceived POF and PJF (Cable and DeRue 2002; Kristof-Brown, Jansen, and Colbert 2002). Some research has shown that perceived POF is the determining factor in job choice decisions (Cable and Judge 1996) whereas other research posits that PJF is most salient (Carless 2005; Harold et al. 2007). In the context of new ventures I was unable to find any published studies that indicated which fit consideration was primary. Levesque (2001) discussed issues related to person-job fit once an individual was in the organization, but didn't tackle how this impacted their attraction to the organization or whether it affected their decision to join the organization.

Research into person-job fit in a new venture context is sorely needed. This will serve not only to broaden our academic understanding of PJF and expand its

application to new settings, but also, from a practitioner's standpoint, help guide new venture management in the staffing process and provide them with an element of human resource management guidance that has both been missing, and sought after (Heneman, Tansky, and Camp 2000).

Exemplary Recruitment Research Integrating Signaling Theory and/or Person-Environment Fit

Research dealing with staffing issues has looked at various factors that impact the employment of individuals in firms. This research has considered decision-making procedures and followed two main streams: The organizational perspective examines what makes an individual appealing to an organization (e.g., Kristof-Brown 2000), while the individual perspective investigates what makes an individual choose one organization or job offer over another (i.e., organizational attractiveness; Carless 2005). Important to note, is that perceived fit, as opposed to objective measures of fit, has been shown to influence individuals' desire to join an organization (Bretz and Judge 1994). Research that examines perceived fit – the extent to which an individual believes fit exists with an element in their environment – prior to organizational entry is necessarily research that examines signals sent by organizations, through which individuals make their assessment of fit. In reviewing each dimension of person-environment fit of interest for this study, I keep the perceived element of fit salient in developing hypotheses for this study.

Certain recruitment research has examined signals sent by various organizational activities or attributes without being explicitly framed in the background of signaling theory: Recruitment activities (Collins and Stevens 2002)

and product awareness behaviors (Collins 2007) act as signals to job seekers of organizational characteristics and predict subsequent applicant behavior; Different types of customer-employee contact are shown to signal varying job characteristic beliefs and impacted PJF perceptions (Erhart 2006); Organizational characteristics, such as size, location, culture and industry are used as ‘pre-screens’ signaling other organizational attributes and impacting whether a job seeker continues in the process of considering a specific job or self-selecting out of the process (Turban, Eyring, and Campion 1993; Rynes and Cable 2003; Cable and Turban 2001).

Other recruitment research has specifically used signaling theory as a theoretical base; for instance, Rynes and colleagues, (Rynes and Miller 1983; Rynes, Heneman, and Schwab 1980; Rynes and Barber 1990) recognizing that job choice takes place under conditions of imperfect information find that recruitment experiences, such as recruitment delays and recruiter competence, serve as signals of unobservable organizational characteristics. Further, founders’ education levels were shown to signal suitability of their firms for employment, but only in the case of innovative start-ups (Backes-Gellner and Werner 2007).

Recruitment and the Resource-Based View

Organizations that are successful in the recruitment and retention of employees with relatively rare skills create a human capital pool that is valuable and difficult to imitate. This can be expected to lead to better performance than those organizations that are not successful in this area (Barney and Wright 1998; Barney 1991), thus recruitment and staffing strategies are amongst the most vital strategic mechanisms for achieving competitive advantage (Ployhart 2006).

While other resources are subject to organizational ownership, individual human assets are unique in that they cannot be owned to the same extent; the risk of voluntary turnover, for positive or negative individual reasons, is present. Organizations must mitigate that risk, and research has consistently shown that strong POF and PJF are negatively related to turnover intentions (Kristof 1996; Moynihan and Pandey 2008; Mitchell et al. 2001). Recruiting employees who best fit an organization is a key component of developing human capital as a source of competitive advantage (Ollala 1999); POF can be thought of to produce rents, "... the existence of gains is likely to result automatically from the underlying likedness of the firm's resources" (Conner 1991, 140).

Individual Attributes

When examining individual attributes for the purpose of this study, I examine both personality traits, the "individual variations of temperament, cognition and interaction style that give each of us our distinct 'color' as human beings" (Miller 2003, 419) and values – enduring beliefs about what is right and wrong (Rokeach 1973), "that which a person subconsciously desires, wants or seeks to obtain" (Locke 1976, 1304). Both of these are posited to moderate the relationship between organizational attributes and perceived fit as will be discussed below.

Personality

Personality traits are used extensively at all levels of person-environment fit research as the link between the individual and the various environmental factors that affect the individual at work. As such, a short review of relevant personality research is beneficial. This section is not meant to be an all-encompassing review of

personality; in-depth reviews on personality from a psychological perspective (e.g., Funder 2001) or personality in organizational settings (e.g., Perrewé and Spector 2002) have recently been performed, and were foundational for this section of the literature review. I will begin with a short review of the most influential personality theory in current research and follow this with a discussion of other personality work that has been prevalent in entrepreneurship research.

Big Five Trait Taxonomy. This section is not meant to be an exhaustive review of the Big Five Trait Taxonomy, or Five Factor Model (FFM), as that has been performed by others (e.g., Mount and Barrick 1995; John, Naumann, and Soto 2008) and is beyond the scope of this discussion. This brief discussion of the FFM is meant to provide the reader an understanding of the dimensions which will be referred to in subsequent sections of this paper.

Though not exhaustive, this five-factor taxonomy of personality, also known as the “Big Five”, has been broadly accepted and shown generally consistent factor structures across various studies (cf. Perrewé and Spector 2002). Certain argument has emerged as to whether the choice of these five factors is most appropriate or whether there should be more or fewer factors included (Smith, Hanges, and Dickson 2001; cf. John, Naumann, and Soto 2008). Further debate surrounds whether other terms best suit the various factors (John 1990; John, Naumann, and Soto 2008; John and Srivastava 1999), while another criticism is the extent to which the factors are independent of one another (Funder 2001), beyond their statistical independence achieved through orthogonal rotation (Goldberg 1990). The factor often called “Neuroticism” has frequently been termed “Emotional Stability” (Funder 2001)

leaving all five factors socially desirable and subject to positive intercorrelation (Digman 1997). Despite these debates, the dimensions of *Extraversion*, *Neuroticism*, *Conscientiousness*, *Agreeableness* and *Openness to Experience* are generally considered to be the basic building blocks of personality (McCrae and Costa 1999) and through over forty years of research (Mount and Barrick 1995) have been shown to be both “necessary and sufficient” (Perrewé and Spector 2002, 4) to express the basic elements of personality. The subsections which follow describe the Big Five elements individually.

Extraversion represents the “tendency to be assertive, social, talkative, energetic and active” (Costa and McCrae 1992; Perrewé and Spector 2002, 9). Organizational outcomes related to extraversion suggest that extraversion positively relates to job performance where social relationships are maximized and social interactions are significant (Mount, Barrick, and Stewart 1998).

Neuroticism represents the “tendency to exhibit poor emotional stability and frequent experience of negative affective feelings such as anxiety, insecurity and hostility” (Costa and McCrae 1992; Perrewé and Spector 2002, 5). In an organizational setting, neuroticism has been shown to be positively associated with burnout (Zellars and Perrewé 2001) and generally negatively related to overall performance (Barrick, Mount, and Judge 2001).

Conscientiousness is the “tendency toward being dependable, disciplined, purposeful, organized and achievement-oriented” (Costa and McCrae 1992; Perrewé and Spector 2002, 6). This personality dimension has received the most research attention in the organizational sciences and a positive relationship between

performance and conscientiousness has been consistently demonstrated (Perrewé and Spector 2002).

Agreeableness is a personality dimension where those scoring high “have the tendency to be trusting, caring, gentle and even compliant” (Costa and McCrae 1992; Perrewé and Spector 2002, 10). Agreeableness has been linked to positive work outcomes such as being a predictor of transformational leadership (Judge and Bono 2000), as well as negative work outcomes such as searching for other jobs (Boudreau et al. 2001). Barrick and colleagues (Barrick, Mount, and Judge 2001) found no evidence of agreeableness as a predictor of overall job performance, thus lending more evidence to the double-edged nature of this dimension.

Openness to Experience is the “tendency to be nonconforming, unconventional, imaginative and creative” (Costa and McCrae 1992; Perrewé and Spector 2002, 11-12). From an organizational standpoint, this dimension predicts adaptability to change (LePine, Colquitt, and Erez 2000) and transformational leadership (Judge and Bono 2000).

Values

Recently, researchers have shown an interest in investigating constructs that have not traditionally been examined in an organizational setting. In their article describing what constitutes new paradigm thinking, Giacalone and Eylon (2000, 1218-1219) state that, “new paradigm thought embodies a critical approach to accepted methodological and philosophical assumptions based on problems that have been hidden therein... [it] is evolving by way of contributions from multidisciplinary perspectives... there is a clear rejection of materialistic values.” It is this aspect of the

new paradigm business outlook that this section discusses, the shift from materialist to postmaterialist values.

Materialism and Postmaterialism. For nearly three decades, research has shown that fundamental values are changing (Inglehart 1977). As Ray suggests, there is “a comprehensive shift in values, world views and ways of life” (Ray 1997, 29).

Inglehart adds that, “these changes seem to be reshaping economic, political and social life in societies around the world” (Inglehart 2000, 215). Both refer to postmaterialist values becoming increasingly prevalent in society. In addressing these value shifts, Ray (1997) speaks of “Cultural Creatives” while Inglehart (2000) mentions “Postmaterialists.” Both of these authors are referring to the same phenomenon, where values are shifting from traditional materialist societies to societies with a postmaterialist value structure.

Materialists emphasize quality of life as determined by acquiring material and economic rewards, prosperity, economic security and control (Inglehart 1977). Conversely, postmaterialists favor quality of life as acquired through experiential means, self-expression, belongingness, environmental protection, and lifestyle issues (Inglehart 1977, 2000; Kasser 2002). An anecdotal comparison of these opposite value structures is that materialists subscribe to the adage that “*he who dies with the most toys wins.*” Postmaterialists on the other hand, may be more apt to believe that “*he who dies with the most toys still dies.*” This value shift has led some researchers to predict that there will be an equal proportion of people who hold postmaterialist values by the year 2020 (Inglehart 2000).

Materialism has been linked with lower levels of subjective well-being (Solberg, Diener, and Robinson 2003), self-worth, physical health (Kasser 2002) and happiness (Inglehart 2000; Van Boven and Gilovich 2003). As Richard Ryan writes in his forward to Kasser's book, "insofar as people have adopted the 'American Dream' of stuffing their pockets, they seem to that extent to be emptier of self and soul" (Kasser 2002, xi).

The concept of postmaterialist values has been discussed and debated since it was proposed (Wilensky 2003; Trump 1991), with the greatest challenges and criticisms over the measurement technique chosen (Giacalone and Jurkiewicz 2005). Giacalone and Jurkiewicz (2005) developed an interactive conceptualization which answered some of the methodological criticism. Their conceptualization allows that individuals are neither exclusively materialistic nor postmaterialistic, but rather these dimensions can be measured separately (low to high levels of materialism, and low to high levels of postmaterialism) as well as interactively. This allows individuals to be placed somewhere within a quadratic conceptualization of materialism-postmaterialism as I illustrate in Figure 2.

Here, individuals who score high postmaterialist with low materialist values could be conceived as traditional postmaterialists and individuals scoring high in materialism and low in postmaterialism would be classified traditional materialists. Those scoring high or low in both dimensions couldn't be as easily categorized, nor their values predicted. This lack of predictive capability with respect to "high/high" or "low/low" individuals does not weaken the construct of postmaterialism; rather it explains greater variance and is intuitively easier to understand than trying to place

individuals on extremes of a continuum when this is neither practical, nor empirically valid.

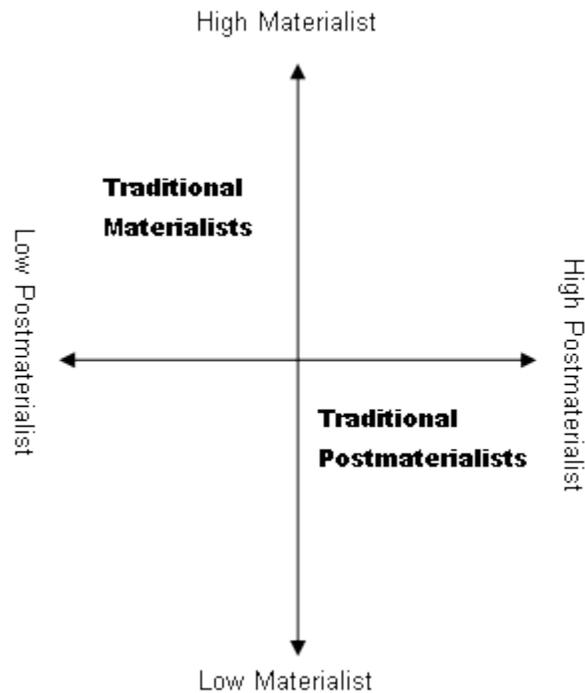


Figure 2. Value Sets

It is important to understand that a postmaterialist value orientation does not imply an aversion to money or material possessions. Rather postmaterialists acknowledge, implicitly or explicitly, the diminishing marginal utility of material items once a level of sustenance is reached (Kasser 2002; Inglehart 2000).

Examining values from the perspective of materialism and postmaterialism is clearly not the only way to measure individuals' values. Previous organizational research has examined values as clarified by Rokeach (1973) and their impact on a variety of organizational outcomes including recruitment and perceived fit (e.g., Bretz and Judge 1994) and organizational effectiveness (e.g., Wiener 1988). Other popular examinations of value sets have been conducted using Schwartz's (1994, 1999) circumplex, including in a decision-making context (Feather 1995).

By examining values through a new paradigm lens of materialism and postmaterialism, my aim is the further understanding of individual value differences from a new perspective. My research is meant, thus, as a complementary stream of research to existing values research with each stream offering unique and valuable insights for practitioners and researchers.

Organizational Attributes

In this section, I examine various organizational attributes that potential job seekers may take into consideration during their job search process. The attributes discussed have been chosen because they have frequently been examined in recruitment research, can be posited to be differentially perceived on the basis of firm size and age, or both.

Organizational Size and Age

Though often used as a control variable in entrepreneurship and other management research, organizational size takes center-stage in this section as a critical variable because it is considered salient to individuals' perception of organizations (Lievens et al. 2001). Firm size and age are not merely control variables in this research, but rather are key independent variables which I propose will impact organizational attractiveness.

Familiarity with an organization is suggested to be positively related to organizational attraction and perceived fit (Lievens, Van Hoyer, and Schreurs 2005; Cable and Turban 2001). New ventures are naturally considerably less likely to be familiar to potential job seekers than established firms. Further lending credence to the suggestion that smallness and newness may be liabilities, research suggest that

new ventures don't have the established human resource systems in place to support a recruitment function to the same extent their established counterparts do (Hanks et al. 1993; Heneman, Tansky, and Camp 2000).

However all is not negatively skewed for new ventures. Their small size suggests greater flexibility in uncertain times as well as a less bureaucratic structure – attributes that may be considered favorable in the eyes of potential job seekers. Of specific interest in this study is the extent to which organizations are perceived to differ on key organizational attributes based solely on their age and size. I contend that the silent signals about organizational attributes sent by a new venture will be different than those sent by established ventures, thus,

***Proposition 1:** Key organizational attributes will be perceived differentially based solely on the explicitly defined attributes of age and size.*

***Proposition 2:** The differentially perceived organizational attributes will have varying salience to job seekers when influencing their perceptions of fit with an organization or job.*

The first of these propositions is examined through hypotheses presented through the next sections of this dissertation. The key organizational attributes being examined are organization personality dimensions as well as the extent to which tasks and roles are perceived to be defined in organizations. The second proposition is examined through the conjoint analysis as described in greater detail in the methods section of this dissertation, whereby salience is ascertained through an examination of the Level-1 Beta coefficients for each attribute relative to one another. Further,

individual-level personality and values variables are posited to moderate the relationship between perceived organizational attributes and perceived fit as is hypothesized below.

Organization Personality

Recent research (e.g., Slaughter et al. 2004) has led to the development of an organization personality construct which has been related to organizational attraction (Harold and Slaughter 2007; Harold and Holtz 2007; Slaughter et al. 2004).

Organization personality, “the set of human personality characteristics perceived to be associated with an organization,” has been likened to brand personality (Aaker 1997) and Slaughter et al (2004) showed that individuals’ ascription of human personality traits was not limited to themselves, other individuals and product brands, but that individuals also described organizations in trait terms.

As Slaughter et al (2004) clarify, the development of an organization personality taxonomy is not akin to anthropomorphizing organizations, but recognizes that individuals’ perceptions of an organization’s social reputation lead to the perceptions of that organization’s personality. In the context of recruitment, organization personality may serve as an indirect information cue – a silent signal to would-be applicants.

Similar to the five-factor model of individual personality (McCrae and Costa 1999; Costa and McCrae 1992), organization personality can also be divided into five distinct factors: Boy Scout, Innovativeness, Dominance, Thrift and Style (Slaughter et al. 2004). Despite having the same number of dimensions, the factors of individual personality cannot be directly mapped onto organization personality dimensions; the

organization personality measure is a distinct construct with its own implications for organizational studies, though the interaction of organization and individual personality dimensions is an area ripe for fit and recruitment research.

An organization considered to be *Boyscout* is attentive to people, personal and friendly. An *Innovative* organization is seen as interesting, exciting, unique and creative. *Dominant* organizations are successful, popular and busy. Organizations ascribed the trait of *Thrift* are viewed as low-budget, simple and undersized. Finally, the organization personality trait of *Style* is assigned to those organizations perceived to be fashionable, hip and trendy (Slaughter et al 2004).

Very little research exists on perceptions of firms by size and age, and thus, the research proposed here is exploratory and attempts to uncover perceptual biases, positive or negative, that may exist based on a ventures size and age. Organization personality dimensions are key attributes that contribute to job-seekers' perceptions of fit and organizational attraction (Slaughter et al. 2004) and are among those hypothesized to vary based solely on the explicitly stated attributes of size and age as shown in Table 1, as shown at the end of the Literature Review section.

Large, established organizations are more likely to be structured in a bureaucratic manner (Child 1973), and employees considered "just another number" (Business Wire 2006). Further, being large and profitable has been negatively associated with *Boyscout* perceptions (Slaughter et al. 2004), therefore:

***Hypothesis 1a:** New ventures¹ will be ascribed the organization personality trait of Boyscout to a greater degree than will established ventures.*

Postmaterialists can be predicted to prefer organizations perceived as Boyscout because postmaterialists favor quality of life as determined through belongingness, self-expression and lifestyle issues (Inglehart 2000; Kasser 2002; Inglehart 1977). Therefore,

***Hypothesis 1b:** The relationship between attributions of the organization personality attribute of Boyscout and person-organization fit will be moderated by an individual job seeker's values such that Traditional Postmaterialist individuals will perceive fit with organizations perceived to be Boyscout to a greater extent than will Traditionally Materialist individuals.*

Though large organizations such as Nike and Disney are considered innovative (Slaughter et al. 2004), the basis of much entrepreneurial theory is innovation; in fact, in his seminal work, Schumpeter (1934) considered innovation a necessary precondition for (true) entrepreneurship. Schumpeter (1934) suggested that creative destruction – his term for innovation – was at the root of venture creation, therefore:

***Hypothesis 2a:** New ventures will be ascribed the organization personality trait of Innovativeness to a greater degree than will established ventures.*

¹ For the purposes of the hypotheses, “New Venture” will refer to ventures that are characterized as both new and small, while “Established Venture” will refer to those ventures that are characterized as both large and established.

Individuals who are unconventional, imaginative and creative are likely to be attracted to similar organizations, therefore:

***Hypothesis 2b:** The relationship between attributions of the organization personality attribute of Innovativeness and person-organization fit will be moderated by an individual job seeker's personality such that individuals with higher levels of Openness to Experience will perceive fit with organizations perceived to be Innovative to a greater extent than those who have lower levels of Openness to Experience.*

New ventures are often created to address an opportunity the founders see existing in the market (Kirzner 1973), therefore new ventures may be created to meet stylish, fashionable trends. This isn't to suggest that established organizations cannot be fashionable, but "teaching an elephant to dance" – as the analogy for IBM's renewal went – takes time. Established organizations may have been created to meet the trends and demands of the time of their founding, but their very established nature suggests they weren't created to meet current market trends to the same extent that new ventures might be, therefore,

***Hypothesis 3a:** New ventures will be ascribed the organization personality trait of Style to a greater degree than will established ventures.*

Materialist individuals' tendency towards status, power and recognition can be construed as a desire to themselves be perceived as stylish, therefore,

***Hypothesis 3b:** The relationship between attributions of the organization personality attribute of Style and person-organization fit will be moderated by an individual job seeker's values such that Traditional Materialist individuals will perceive fit with organizations perceived to be Stylish to a greater extent than will Traditionalist Postmaterialist individuals.*

One outcome of financial success is growth and survival. This suggests that bigger, longer established organizations must have experienced a certain amount of financial success to achieve their very size and age, therefore:

***Hypothesis 4a:** Established ventures will be ascribed the organization personality trait of Dominance to a greater degree than will new ventures.*

Growth and survival can signal a greater amount of employment security for potential employees than organizations perceived to be in flux. A key construct underscoring materialist values is the scarcity hypothesis – that one places the greatest subjective value on those things that are relatively in short supply (Inglehart 1977). Materialists strive for, among other things, economic security and control and can be predicted to prefer organizations where they perceive organizational survival and ability to provide material rewards and economic security to be greater, therefore,

***Hypothesis 4b:** The relationship between attributions of the organization personality attribute of Dominance and person-organization fit will be moderated by an individual job seeker's values*

such that Traditional Materialist individuals will perceive fit with organizations perceived to be Dominant to a greater extent than will Traditional Postmaterialist individuals.

Beyond the dimensions of organization personality, another key characteristic of interest in this dissertation that can be signaled based on organizational size and age is the extent to which tasks and roles are defined in an organization.

Defined Tasks and Roles

As person-job fit considerations have been shown to be the strongest fit predictor of organizational attraction (Harold et al. 2007) and new ventures tend to have greater role ambiguity and defined tasks associated with jobs (May 1997; Levesque 2001), it can be expected that new ventures will also be perceived to have less role certainty and defined tasks. Because established organizations are more likely to have defined human resource management processes (Hanks et al. 1993), including job analysis and job description,

***Hypothesis 5a:** Established ventures will be perceived to have more clearly defined roles assigned to jobs than will new ventures*

Individuals who have the personality trait of Openness to Experience will likely tend to be less impacted by the extent to which role ambiguity and uncertainty are attributed to new ventures, therefore,

***Hypothesis 5b:** The relationship between the extent to which tasks and roles are defined and person-job fit will be moderated by an individual job seeker's personality such that individuals with higher levels of*

Openness to Experience will perceive fit with jobs that feature less defined tasks and roles to a greater extent than those who have lower levels of Openness to Experience.

Further, a tendency to be trusting and compliant would fit the uncertain nature of organizations that feature jobs with role ambiguity and uncertainty. To trust the leadership of a venture to direct an individual in a suitable manner and be compliant to their demands despite a lack of formal guidelines could point to individuals whose personalities feature agreeableness as being well-suited to organizations without role structure, therefore,

***Hypothesis 5c:** The relationship between the extent to which tasks and roles are defined and person-organization fit will be moderated by an individual job seeker's personality such that individuals with higher levels of Agreeableness will perceive fit with organizations whose jobs feature less defined tasks and roles to a greater extent than those who have lower levels of Agreeableness.*

While hypotheses 1a-5a may seem relatively intuitive, it is important to understand the differences in organizational trait inferences based on size and age as these differences can profoundly impact the recruitment process (Anderson, Haar, and Gibb 2010; Slaughter et al. 2004; Slaughter and Greguras 2009), including job seekers' self-selection out of this process (Turban, Eyring, and Campion 1993; Rynes and Cable 2003; Cable and Turban 2001). From a practitioner's perspective, understanding how one's firm is perceived allows careful image management during the recruitment process, possibly by highlighting perceptions that are positive, or working to change incorrect perceptions.

Hyp #	Type of Venture		Perceived Organizational Attribute		Individual Attribute		Perceived Fit
1a	New Venture	+ve	Boyscout				
1b			Boyscout	X	Postmaterialist	+ve	P-O Fit
2a	New Venture	+ve	Innovative				
2b			Innovative	X	Openness to Experience	+ve	P-O Fit
3a	New Venture	+ve	Style				
3b			Style	X	Materialist	+ve	P-O Fit
4a	Established Venture	+ve	Dominance				
4b			Dominance	X	Materialist	+ve	P-O Fit
5a	Established Venture	+ve	Defined Tasks/Roles				
5b			Defined Tasks/Roles	X	Openness to Experience	-ve	P-J Fit
5c			Defined Tasks/Roles	X	Agreeableness	-ve	P-O Fit

Table 1. Hypotheses

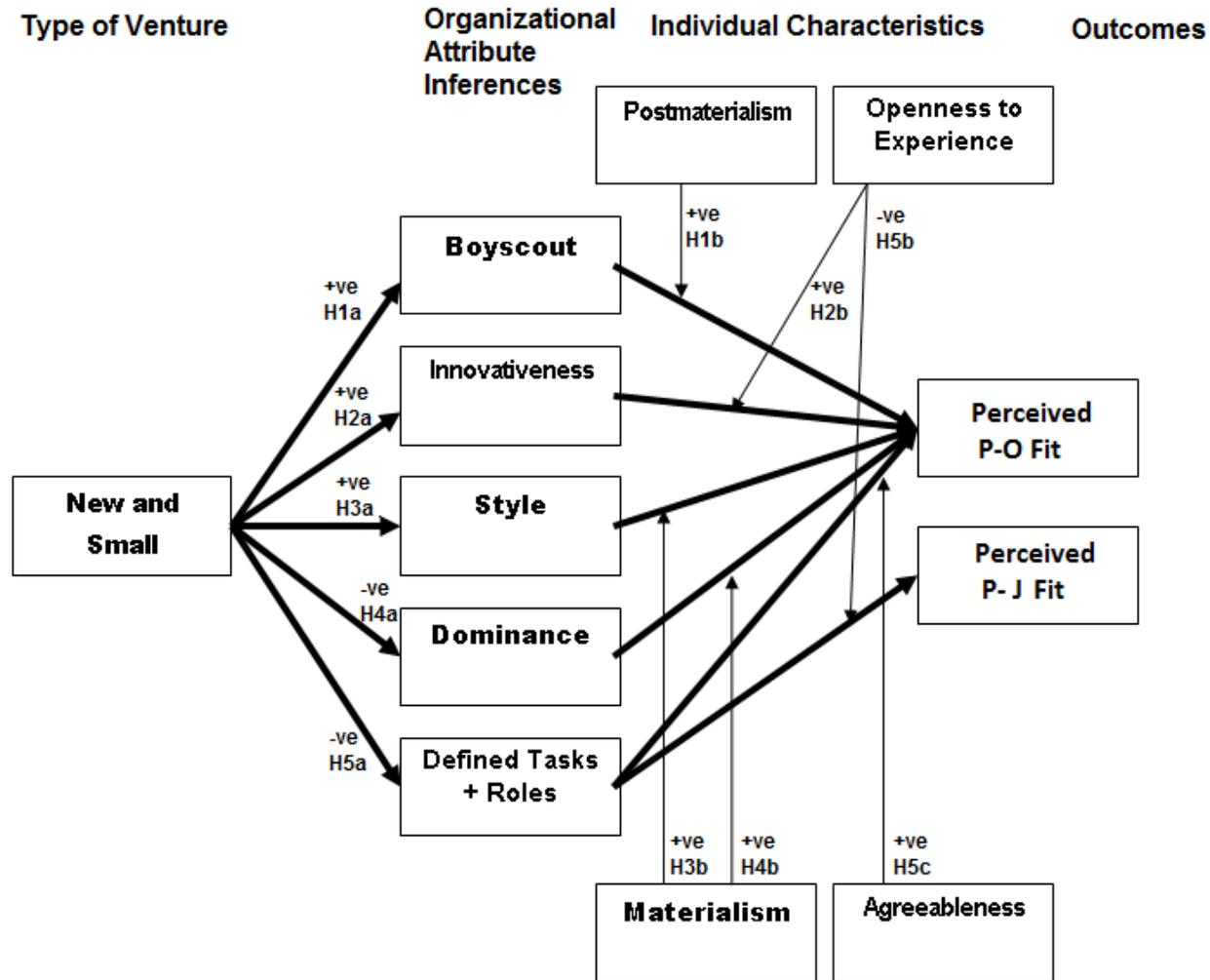


Figure 3. Research Model Showing Hypothesized Relationships

The purpose of this research project is not merely to replicate existing studies using new ventures as a variable of interest, but rather to examine which organizational attributes that are differentially perceived based on firm size and age, and this is the focus of the first study within this project. Once it is clear which attributes are perceived to vary based on firm age and size, the purpose of the second study is to examine the relative importance of these differentiated attributes to job seekers. The following section will describe the methodology to be used in the studies to be undertaken.

CHAPTER 3. METHODS

The research was undertaken as a two-study project; the first study is aimed at identifying which key organizational attributes are differentially perceived based on organizational size and age. In the second study, conjoint analysis is performed to determine the relative importance of the organizational attributes examined, their impact on perceived fit and their interaction with hypothesized personal attributes.

Sample and Data Collection

A web-based survey was conducted on 344 participants for this study; the sample comprised of students enrolled in undergraduate human resource management courses at a large Mid-Atlantic university who participated in exchange for course-credit. Of the original sample, 306 began completing the survey instrument giving an initial response rate of 88.9%. However 56 respondents completed only one of the two-parts, reducing the sample size to 250. Of these, 34 respondents submitted surveys with incomplete data and their responses were removed from the sample, leaving the usable sample size at 216, or 62.8% of the initial sample size. The sample was 59.9% female and averaged 23.7 years of age.

Though students cannot be considered to completely mirror the population of job seekers, the use of students, however, is a high-fidelity sample representing potential new entrants to the workforce. To control for the level of fidelity, respondents were asked what stage of the job search process they were in. 90.7% of respondents had searched for employment within the past year, were currently searching for employment or planned to search within the next year.

A Note on the Use of a Student Sample and External Validity

Criticism of using students in behavioral research, or as proxies for organizational decision makers has been around for over half a century (e.g., McNemar 1946), with a primary concern being on the generalizability of student sample results to professional organizations. For instance, Copeland, Francia and Strawser (1973) condemn the practice, though their study examined student attitudes toward selected financial reporting practices. One could argue that for their study, students were a low-fidelity sample, and similarly that their own results are not generalizable to behavioral research as a whole, but limited in their applicability. As they state, “The results of the current study on attitudes raise further doubt concerning the effectiveness of the use of students as surrogates for businessmen in research” (Copeland, Francia, and Strawser 1973, 372).

Despite this type of criticism, the use of student samples is relatively common in the investigation of basic cognitive, psychological and organizational questions (e.g., Harkness, Tellegen, and Waller 1995) including those for use in management (e.g., Brock and Slusky 1994) and often when examining organizational trait inferences (e.g., Slaughter et al. 2004; Lievens and Highhouse 2003; Anderson, Haar, and Gibb 2010; Slaughter and Greguras 2009) and in recruitment research (e.g., Thompson and Aspinwall 2009; Collins 2007; Rynes, Bretz, and Gerhart 1991; Trank, Rynes, and Bretz 2002; Cunningham 2009).

The study I have conducted doesn't try to use students as surrogates for business professionals, but rather as job seekers, which over 90% of the sample proved to be as one might expect of a sample of upper-level students. Further, as

smaller organizations provide 67% of “first jobs” (United States Department of Labor 2010), examining a sample consisting of respondents who are likely searching for their first professional job makes a student sample not merely convenient, but high fidelity.

Further, one could epistemologically argue against random sampling and a focus on external validity in a theory-building arena, “Random sampling is not only unnecessary in theoretical research, but it may actually interfere with achieving a severe theory test. This is because it is likely to increase error variance and thereby reduce statistical conclusion validity... research progress does not require external validity for any single research study” (Calder, Phillips, and Tybout 1982, 241). For a theoretical test (eg., ‘*Job seekers high on personality construct X are more likely to perceive fit with an organization high on characteristic Y*’), it makes little sense to try and rephrase the research question as ‘*for any random sample of people X, how many would perceive fit with an organization randomly assigned characteristic Y*’; the theory is tested as well by a non-random as a random sample (Calder, Phillips, and Tybout 1982). Another type of cry for external validity beyond commonsense is that if there are background variables or constructs that are not examined, but *could* interact with those examined, that can weaken the theoretical applicability. This is true, but amounts to tautology, whereby no researcher can be expected to conceive of every possible interaction, let alone measure them.

Part 1 – Differential Perception of Organizational Attributes

The purpose of this study is to determine whether a perceptual bias exists with respect to organizational size and age and test Hypothesis 1 and the related sub-hypotheses presented in Table 1.

Procedure

Pilot Study. Before carrying out the main data collection efforts for this study, I carried out a pilot study in order to ensure that the questions were clear and understandable and that the web-delivery of the survey did not create any undue confusion. Twenty-two undergraduate students from the same university used in the main sample volunteered to take part in the pilot study in exchange for course credit. Minor wording adjustments to the response scales were made as a response to the feedback received from these.

Through the pilot, it was found that using semantic differential scales was preferable to measuring perception using Likert scales. Semantic differential scales proved to be quicker to administer, which should help increase response rate and there were no significant differences between the data produced. The semantic differential scale to be used in this study is included as Appendix A.

Semantic Differential Scales

Semantic differential scales, first introduced by Osgood, Suci and Tannenbaum (1957) have been used frequently for measuring social attitudes, commonly in the fields of linguistics and social psychology (cf. Al-Hindawe 2009), as well as leadership and human resource management (Bovey and Hede 2001), brand

image management (Maoz and Tybout 2002) and entrepreneurship (Lumpkin and Dess 2001).

Using semantic differential scales involves asking respondents to indicate the degree to which a word in a pair best describes the respondent's feelings about the subject in question. In line with semantic differential scale design conventions, participants will be presented with a set of word pairs and asked to indicate which of the two words best describes their usual feelings, thoughts or reactions to the organization in question. Respondents are reassured that there is no "right" answer, but rather that the objective of this study is to understand respondents' general feelings about these organizations.

The scales used for this study are seven-point scales which is the most common number of points of choice on a scale and in line with Osgood et al.'s (1957) original scales. The use of a seven point scale is considered to be the best balance between giving respondents a fine enough grade of judgment compared to five-point scales, and still allowing a neutral (or midpoint) choice (Al-Hindawe 2009). Six-point scales are also common, but forces respondents to lean toward one word or the other. This leaves the researcher to wonder whether values of "3" or "4" represent a slight preference to one word, or whether the respondent is merely using these values as representations of neutrality.

Criticism of semantic differential scales has often been focused on two areas of critique: that these scales are not shown to be reliable or valid compared with other measures; and that these scales are often created through *ad-hoc* selection of adjectives without empirical rationale that supports these selections (Lee 1971). I

have attempted to address the former concern through conducting the pilot study as described above. The adjectives selected for use in my study are based on empirically supported organization personality research (Slaughter et al. 2004) which addresses the latter concern.

Other concerns when using semantic differential scales concern whether traits examined are considered positive or negative and the potential for biased response, for instance if all traits considered positive were listed first. I chose to randomize which attribute to list first in the word-pairs, thereby reducing this type of bias and doesn't put adjectives that aren't naturally positive or negative in unnatural polarities.

Using semantic differential scales also bestows advantages unto the research in reducing an acquiescence bias that can occur in Likert-based constructs. In comparing Likert-based to semantic differential-based scorings of resilience, Friberg, Martinussen and Rosenvinge (2006) found that semantic scales proved better than the Likert version in terms of model fit and unidimensionality.

Semantic differential scales concerning two organizations will be analyzed. The organizations are described as follows:

Organization A was founded in 1966 and has over 1,000 employees

Organization B was founded last year and has fewer than 50 employees

This characterization of new ventures being both young in age and small in size is in line with previous studies and guidelines. For instance, the United States Small Business Administration defines a small business as having fewer than 500 employees. The European Commission has further delineated between types of small

business and considers businesses with fewer than 50 to be “small businesses” and fewer than 250 to be “medium-sized”.

I have intentionally chosen to examine size and age together in this study in order to examine perceptible differences between a new venture and its opposite – a large, established venture. Certainly all organizations do not fall into one of these two neat categories; there are established firms that have a relatively small workforce, and there are also firms whose age may be young, but have grown rapidly to accommodate many employees. By deliberately examining only these two contrasting ends of the spectrum, I am hoping to get a clearer distinction of the attributions made of small, new ventures compared to those of large, established ventures. The decision to use the cut-off of 50 employees in the profiles for this study was made to highlight the expected differences between small and large firms. There are clearly firms with far fewer than 50 employees, as small as micro-ventures all the way down to sole proprietorships. Similarly, the choice of 1,000 employees for the “large” designation was made to clearly distinguish that size from fewer than 50 employees. There are, of course organizations with far more than 1,000 employees. The choice of both 50 and 1,000 employees is seen as representative “small” and “large” firms, sizes that present themselves far more frequently to job seekers than very large or very small companies. For instance, the *CapitalIQ* database² lists 836,331 private and publicly traded companies. Nearly twenty-five percent (202, 266) of these have between 26 and 75 employees. Another 73,106 companies have between 501-1500 companies, a figure more than tenfold that (7,012) of companies with over 10,000 employees.

² The numbers presented here reflect a recent search of the CapitalIQ database on November 21, 2009. Data retrieved from www.capitaliq.com

The choice of organizational age was again made with the intention of eliciting distinct impressions from respondents based on a clearly new and a clearly established age range, again recognizing that these are meant to be clearly distinguishable examples even if not polar opposites. The profiles will randomly be presented to participants (ie., half the respondents will see Organization A as the new, small venture) to minimize order-effect bias (Perreault 1975). Participants will then be asked to rate the extent to which the various attributes reflect the organizations presented.

Measures

The measures of interest for this study are the key organizational attributes as well as demographic controls. Further, the two surveys used in this study will be administered with a one-week gap between administration to reduce single-method bias. Respondents will be randomly assigned to complete one survey at time (t_x) and the subsequent survey at time (t_{x+1w} .)

Organization Personality. The measures of organization personality are based on Slaughter et al (2004). They are taken based on the top-three loading variables per organization personality dimension. A test of validity compared to the original 33-item measure (Slaughter et al. 2004) was performed in the pilot study above, and demonstrated acceptable internal reliability.

Semantic differential measures for each organization personality dimension are: “*friendly vs. cold*”, “*attentive to people vs. neglectful toward people*”, and “*pleasant vs. disagreeable*” (Boyscout); “*interesting vs. dull*”, “*exciting vs. boring*”, and “*unique vs. common*” (*Innovativeness*); “*successful vs. losing*”, “*popular vs.*

unpopular”, “*dominant vs. inferior*” (*Dominance*); “*low-budget vs. extravagant*”, “*low-class vs. high-class*”, “*simple vs. complex*” (*Thrift*); and “*stylish vs. outmoded*”, “*fashionable vs. unfashionable*”, and “*hip vs. uncontemporary*” (*Style*).

The internal reliability measures, shown in Table 2 below, ranged from $\alpha = 0.631-0.813$. Although the Cronbach’s alpha levels did not all quite meet the oft-cited 0.7 threshold suggested by Nunnally (1978), this recommendation is qualified by the suggestion that recommendations about acceptable levels of alpha are contingent upon the function or purpose of the research, lower reliability is acceptable for exploratory research (Kent 2001). Further, “none of Nunnally’s recommendations have an empirical basis, a theoretical justification, or an analytical rationale. Rather, they seem to reflect either experience or intuition” (Kent 2001, 221). In fact, without explanation, Nunnally changed his own recommendations from his 1967 edition of *Psychometric Theory* in the 1978 version. In the former, his recommendation for preliminary research was that the minimally acceptable reliability should be in the range of 0.5-0.6 (Kent 2001; Peterson 1994). Others have suggested that an alpha level between 0.65-0.70 is minimally acceptable (DeVellis 1991). A low Cronbach’s alpha also needn’t indicate an unreliable scale – this could also be due to a relatively homogenous sample (Bernardi 1994). Given that I use only one scale with a Cronbach’s alpha level below $\alpha = 0.65$, I am comfortable in the reliability of the scales used, and the conclusions I draw.

Defined Tasks and Roles. I have created a 3-item measure for this study to assess the extent to which organizations are perceived to have jobs which feature defined tasks and roles. An example is, “*This organization has clearly defined roles for its*

employees.” This measure was included in the pilot study as described above to test for validity and is shown in Appendix B.

Organizational Attributes

Attribute	OrgA	OrgB
	α	α
Boyscout	0.796	0.790
Innovativeness	0.665	0.631
Dominance	0.691	0.675
Style	0.728	0.664
DTR	0.795	0.815

N=216

Individual Attributes

Attribute	α	Items
Materialism	0.894	14
Postmaterialism	0.815	11
Openness	0.778	9
Agreeableness	0.748	8
Extraversion	0.851	8

N=216

Table 2. Internal Reliability Analysis

Control Variables. The sample was controlled using single-item variables measuring age, gender, work experience and current job search status. Exposure to new ventures, small-sized ventures, large ventures and established ventures were controlled using single-item measures, for instance, “*I have worked for, or currently am employed by an organization that was founded less than 2 years before I joined that organization*” (new ventures).

Results

To test the “a” hypotheses (i.e. 1a- 5a) and identify which organizational attributes are perceived differentially between small, new organizations and large,

established ones paired sample T-Tests were run to determine group differences comparing new and small organizations to large and established organizations.

Recalling the “a” hypotheses: Hypothesis 1a predicted that new ventures would be ascribed the organization personality trait of Boyscout to a greater degree than established ventures; Hypothesis 2a predicted that new ventures would be ascribed the organization personality trait of Innovativeness to a greater degree than established ventures; Hypothesis 3a predicted that new ventures would be ascribed the organization personality trait of Style to a greater degree than established ventures; Hypothesis 4a predicted that established ventures would be ascribed the organization personality trait of Dominance to a greater degree than new ventures; Hypothesis 5a predicted that established ventures would be perceived to have more clearly defined roles assigned to jobs than new ventures. The results of this analysis are summarized in Table 3, below.

Organizational Attribute Means by Organization Type³

	Boyscout	Innovativeness	Dominance	Style	DTR
Large and Established Venture	3.7762	4.2701	2.5355	4.0899	2.4950
Small and New Venture	2.4506	2.9954	4.0910	3.1860	2.7488
Mean Difference ⁴	1.3256***	1.2747***	-1.5555***	0.9039***	-0.2538*

* p≤ .05, ** p≤ .01, *** p≤ .001

N=136 for Boyscout, Innovativeness and DTR; N=216 for Dominance and Style

Table 3. Paired Sample T-Tests

³ A lower mean indicates stronger trait inference (e.g., Small and New organizations have a lower mean score for Boyscout indicating that they are perceived to hold the trait of Boyscout more so than Large and Established organizations). Please recall that the organization personality dimensions (ie., Boyscout, Innovativeness, Dominance and Style) were scored on a 7-point scale, while defined tasks and roles were scored on a 5-point scale, thus mean differences of organization personality dimensions should not be compared to the mean difference in defined tasks and roles.

⁴ Positive differences indicate that Large and Established organizations had a higher mean score (ie., weaker trait inference), whereas negative differences indicate that the Small and New organizations had a higher mean score.

The results of the paired-sample T-tests showed support for all Hypotheses 1a-5a as there were significant differences in how organizations were perceived on the various organizational personality dimensions based on size and age. For defined roles and tasks, new ventures were perceived as having less defined roles and tasks as hypothesized.

Several one-way ANOVAs were performed to control for the impact of gender, age, prior exposure to entrepreneurship, and job-search status. None of these individual variables had a significant ($p < 0.10$) impact on this study. This suggests that the differences in organizational traits are perceived relatively universally.

Part 2 – Salience of Organizational Attributes with Respect to Perceived Fit

The purpose of this study is to examine which organizational attributes are most salient to job seekers and thus have the greatest impact on perceived fit. Further, recognizing that these factors are usually not considered individually, in performing this study, I seek to understand some interactions between individual factors that impact organizational attraction.

Conjoint Analysis

Conjoint analysis is a policy capturing tool that is often used in marketing research (Green and Srinivasan 1990, 1978) to determine which product attributes are most important in purchase decisions for consumers; it has proven to be a popular and effective method in estimating customers' preference structures (Sattler and Hensel-Börner 2001). Conjoint analysis requires respondents to make a series of judgments based on a set of attributes (cues) from which the underlying structure of their decision policy can be investigated. From this series of judgments the respondent's

decisions can be decomposed, providing the researcher an opportunity to investigate the underlying structure of the decisions (Douglas and Shepherd 2002). There is an analogous relationship between consumer purchase behavior and job search behavior making this method an appropriate tool for recruitment researchers. Much as an organization markets a product based on product attributes (e.g., price, size, perceived image) to encourage consumers to choose their brand, in recruiting potential employees, an organization effectively needs to market itself based on its organizational attributes – actual and perceived – to encourage potential employees (i.e., employment opportunity consumers) to choose that organization.

Policy Capturing vs. Direct Estimation. The choice to conduct a policy capturing study such as conjoint analysis as opposed to using direct estimates (e.g., rank-order preferences of attributes) is based on the assumption that candidates use a noncompensatory decision making strategy in which case policy capturing is a more effective method (Slaughter, Richard, and Martin 2006). Compensatory decision making is an extension of Vroom's expectancy theory whereby job-seekers multiply a subjectively determined importance weight by the subjectively assessed degree to which an organization or job offers that attribute. Noncompensatory decision making suggests that job seekers determine the most important attribute and either choose the alternative with the highest value on the most important dimension (i.e., lexicographic procedure) or determine the cutoff value for that most important attribute and alternatives with values below the cutoff are eliminated, then repeating this process with the next most important attribute until a single alternative remains (i.e., elimination-by-aspects; cf., Slaughter et al. [2006]: 287-288).

Why Use Conjoint Analysis? Compared with methods of direct estimation, conjoint analysis is considered to have greater fidelity to actual decisions individuals make (Sattler and Hensel-Börner 2001). In conjoint analysis, several attributes must be considered simultaneously, whereas direct estimation traditionally examines attributes independent of one another. In evaluating an organization, individuals are faced with information on several attributes at the same time, thus a conjoint experiment that presents information about several attributes simultaneously has greater similarity to the actual choice decision, or in this case, evaluation of perceived fit. Further, conjoint experiments are less susceptible to social desirability bias than methods using direct estimation and produce a rich set of data for prioritizing job seekers' needs (Simmons and Esser 2001).

Conjoint analysis avoids the use of retrospective and self-reported data by collecting information about a decision as that decision is made, enabling researchers to “partition respondents’ decisions into underlying preference structures and decision rules by collecting data as respondents make decisions. Thus, researchers can assess respondents ‘theory in use’ rather than their ‘espoused theories of action’” (Lohrke, Holloway, and Wooley 2010, 17)

Determining the level of fit they perceive with an organization or job is complex in that candidates must simultaneously process multiple characteristics in order to make a determination of fit and ultimately a decision to accept a job offer. Conjoint analysis has been used as a policy capturing methodology in hundreds of studies of judgment and decision making (cf. Green and Srinivasan 1990) and is considered to be an appropriate analytic framework when decisions are assumed to

involve the simultaneous evaluation and combination of information on multiple characteristics (Green and Srinivasan 1978, 1990), as is the case in a recruitment context for job-seekers.

Experiment Design. In conjoint analysis, respondents are presented scenarios reflecting the decisions they are expected to make. These scenarios, or vignettes, include descriptions of organizations based on their attributes. A consideration in conjoint experimental design is the number of attributes that are presented in each profile; respondents have difficulty processing more than seven attributes at a time – when more than seven attributes are present, respondents tend to group several of these into a macro variable with the individual attributes within being traded off in a separate micro-conjoint set (Simmons and Esser 2001).

Another question to answer when designing an experiment is the number of levels at which the attributes will be varied. A methodological artifact of concern is that attributes with a greater number of levels tend to be rated as more important than those attributes with fewer levels (Wittink et al. 1992; Wittink, Krishnamurthi, and Reibstein 1990) – this phenomenon is known as the *number-of-levels effect* or the *attribute-level problem*.

Considering the limitations in the number of attributes that respondents can reasonably process, and the number-of-levels effect, this study consisted of seven attributes that vary at two levels each. Respondents will be presented with a series of descriptions of organizations; each description will consist of statements about the organization and each statement can vary at one of two levels. The attributes and their corresponding levels are shown in Appendix C along with a sample profile.

A full factorial conjoint analysis would involve vignettes depicting all possible permutations of organizational attributes. However, since I am examining seven organization attributes in this study, including the impact of size and age, a full factorial design involving seven dichotomous variables being presented would result in 128 vignettes. Due to the likelihood of respondent fatigue, it is recommended that the number of scenarios presented to respondents be limited (Green and Srinivasan 1978; Gustafsson, Herrman, and Huber 2001). A method for addressing the balance between respondent fatigue and optimal understanding of the phenomena to be examined is to use a reduced design which aims for representation of the complete design using a smaller amount of scenarios (Gustafsson, Herrman, and Huber 2001).

As such, I used a 2^7 fractional factorial design (Hahn and Shapiro 1966, plan 6b) consisting of 16 profiles. The purpose of this fractional design was to determine the relative importance of each characteristic in the determination of perceived fit at the individual-subject (job seeker) level. This design is orthogonal, meaning that intercorrelations between the variables are zero. This eliminates concerns of multicollinearity and “increases the robustness of the conjoint by making it less likely that coefficients have counter-intuitive signs” (Huber 1987, as quoted in Haynie, Shepherd, and McMullen 2009, 347).

This fractionated design also allows for a post-hoc examination of how organizational size, when separated from age, interacts with the other attributes of interest in this study.

Each of the 16 profiles will be fully replicated in the study design, meaning that respondents will see both levels of each characteristic twice – replication enables

the use of individual error terms for individual-subject analyses of variance (ANOVA). Therefore, each respondent will evaluate a total of 16 different organizations twice each. Further, as is custom in conjoint studies, a practice profile is shown to each respondent in order to familiarize respondents with the conjoint task. This means that each respondent sees 33 profiles, of which 16 are replicated and one is not analyzed.

The table in Appendix C shows the organizational attributes examined in the conjoint profiles, their high and low levels and how they are distributed amongst the profiles in plan 6b from Hahn and Shapiro (1966).

While seven attributes is at the upper level of what respondents are presumed able to cognitively process, conjoint studies have previously been conducted with seven or more attributes (e.g., Choi and Shepherd 2004; zu Knyphausen-Aufseß and Vormann 2009). A recent review of conjoint methodology in entrepreneurship research (Lohrke, Holloway, and Wooley 2010) located 16 published studies in 25 leading entrepreneurship outlets. This review revealed that sample sizes ranged from 51 to 300, and all studies only had internal validation (e.g., pilot studies, test-retest reliability) – none tested for external validity. The study I have conducted is in line with existing research using conjoint methodology, and my sample size is 216. I test internal but not external validity, and I am using seven attributes varied at two levels in an orthogonal fractional factorial design, similar to Choi and Shepherd (2004).

Conjoint analysis is particularly appropriate for this study because as a real time method it overcomes many of the potential research biases associated with post-hoc methods, such as, self-reporting biases, retrospective reporting biases, and

difficulty collecting contingent decision data (Choi and Shepherd 2004). In describing Conjoint analysis, Lohrke et al. focus on the uniqueness of this methodology in that data is collected in a decompositional manner:

With a ‘compositional’ research approach, researchers obtain both independent and dependent variables from respondents and then use these data to estimate or ‘compose’ the predictive model, with conjoint analysis, researchers specify levels for each attribute (ie., independent variable) and then present respondents with different combinations of these levels. Because levels are known, researchers need only to collect respondent ratings to use as the dependent variable. In doing so, they can estimate or ‘decompose’ the importance that respondents assign to each variable.” (Lohrke, Holloway, and Wooley 2010, 18)

With its advantages in examining respondents’ ‘theory in use’, conjoint analysis may help to open the decision making ‘black box’ by providing insight into job seekers’ attribute preference structures.

In the following section, I describe the measures used in the conjoint analysis portion of my study.

Measures

Materialism and Postmaterialism. The revised materialism/postmaterialism index (R-MPMI; Giacalone and Jurkiewicz 2005) was used in this study. An example of a question in the revised materialism scale is, “*The things people own say a lot about how well they are doing in life,*” while an example of a question in the revised postmaterialism scale is, “*Managers should encourage their employees to search for meaning in their jobs.*”

Individual Personality Dimensions. To measure the individual personality dimensions of agreeableness and openness, the Big Five Inventory (BFI; Benet-Martinez and John 1998; John, Naumann, and Soto 2008; John, Donahue, and Kentle 1991) was used.

Respondents indicate on a five-point Likert scale the extent to which they agree or disagree with a series of statements which all begin with “I am someone who...” An example of an item measuring agreeableness is “*I am someone who is helpful and unselfish with others.*” An example of an item measuring openness is “*I am someone who is curious about many different things.*” I have chosen to use the BFI as opposed to other methods of measuring personality for two main reasons: In addition to being a cost-free, publicly available inventory, the BFI has been shown to be psychometrically acceptable in comparison to the commercial, costly NEO-FFI (Costa and McCrae 1992).

Internal reliability for all individual measures of values and personality were acceptable ($0.748 \leq \alpha \leq 0.894$) as shown in Table 2.

For the analyses described below, the individuals are classified as Traditional Materialist or Traditional Postmaterialist based on the interaction of their median-split scales, whereby those scoring above the median on the Materialism index and low on the Postmaterialism index are considered Traditional Materialists and those score low on the materialism index and high on the Postmaterialism index are considered Traditional Postmaterialists.

Though the use of a median-split to categorize a continuous variable has been criticized as it can reduce statistical power (Cohen 1983; MacCallum et al. 2002), it is common in the analysis of psychological inventories (Ryff and Singer 2002) and despite criticism has been relatively common in leading psychology journals (MacCallum et al. 2002). Using a median-split on each of the Materialism and Postmaterialism indices as opposed to a quartile-split or other categorizing procedure

ensures the least loss of data when combining the two variables to form a new category (ie., Traditional Materialist and Traditional Postmaterialist). 31% of respondents were categorized as Traditional Materialists and 24.5% were categorized as Traditional Postmaterialists, with 18.5% high in both Materialism and Postmaterialism and 25.9% low in both Materialism and Postmaterialism.

Person-Organizational Fit. The 3-item measure of perceived person-organization fit is taken from Cable and DeRue (2002) and the wording is altered to reflect a recruitment focus as opposed to the original measure of fit with one's current organization. An example is, "*The things I value in life are very similar to the things that this organization values.*"

Person-Job Fit. The measure of perceived person-job fit is also taken from Cable and DeRue (2002) and measures needs-supplies P-J fit. Items have been slightly reworded where appropriate to reflect the current study. An example is, "*The attributes I look for in a job would be fulfilled very well by a job in this organization.*"

Internal reliability for both the P-O and P-J fit measures was greater than $\alpha=0.9$, consistent with Cable and DeRue (2002).

Procedure

Respondents were directed to a web site to complete the instrument. The directions ensured participants of their anonymity instructed them to place themselves in the situation of evaluating an organization from which they may receive a job offer. They are told to assume that pay and geographic location are the same for all organizations and to make their evaluation of the organizations based on the information provided, even if they find the information to be incomplete. This mirrors

real-life decisions job seekers face in making decisions under conditions of imperfect information.

Respondents considered the descriptions of the organizations, or conjoint profiles as described by the eight characteristics, one at a time and indicate their perceived fit on 11-point Likert-style scales. The purpose of using an 11-point scale is to elucidate subtle differences between the profiles and is in line with other conjoint studies (e.g., Shepherd, Ettenson, and Crouch 2000; Douglas and Shepherd 2002; Haynie, Shepherd, and McMullen 2009).

Results

The data in this study were multilevel in nature. At one level, each participant evaluated 32 separate organizational profiles whereby the variables (ie., organizational attributes) that described these organizations was manipulated. At the next level, the variables that characterized individual differences (ie., values and individual personality) were held constant for each respondent. Given this nested multilevel data structure, I employed hierarchical linear modeling and the statistical software, HLM (Raudenbush, Bryk, and Congdon 2009;) as my primary analytical approach.⁵ In this study, individual variables are predicted to “influence or be influenced by” organizational-level variables, making their relationship hierarchical in nature (Hofmann 1997). Since the personality and values attributes of individual participants were constant while the organizational attributes of the hypothetical profiles varied (ie., across the 32 opportunity profiles evaluated by each participant),

⁵ There are many statistical software programs that can be used. For instance, the “Mixed” procedure in recent versions of SPSS can be used to study multi-level problems (Heck, Thomas and Tabata, 2010). I ran the data in both programs to cross-check one another, and the parameter estimates provided were identical.

the hypotheses were modeled as cross-level interactions. In other words, the nested nature of my data required that the hypotheses be analyzed as interactions between variables that were static (ie., person-level attributes) and those that could vary (ie., within-organization manipulations in the profiles). As Hofmann, Morgeson, and Gerras (2003) highlight, HLM is particularly well suited for the evaluation of cross-level interactions.

Before I could analyze the data, it was necessary to prepare the data into a format that the statistical software could use and create an omnibus file. Each evaluation of perceived fit is considered a distinct “case” for the purposes of analysis. Because there were 32 profiles examined by each of 216 individuals, the data was originally contained in a data file that was 216 rows x 80 columns, representing the individual-level variables (ie., personality, values and control variables) and the 64 fit assessments (ie., 32 POF and 32 PJF) per row. As fit perceptions (ie., POF and PJF) are the dependent variables of interest in this study, the data was reorganized into a data file with 6912 rows x 37 columns, holding constant the individual-level variables for each of the 32 judgments of perceived fit. Figure 4, on the following page shows how the transformation of data appears in the SPSS data file.

In the next sections, I follow the outline provided by Hofmann (1997) to describe the analysis of hierarchical data using a typical sequence of models that allows the sequential testing of the necessary conditions described above, as well as the hypotheses listed in Table 1.

	BirthYr	GENDER	WorkExp	ExpSm	ExpNew	ExpStudy	ExpLarge	Ex	BFI_OPE	C_POF	D_POF	E_POF	F_POF	G_POF	H_POF	I_POF
1	1989	1	4	1	2	1	1		3.000	11.00	9.00	2.67	3.67	9.67	8.67	
2	1988	0	2	2	2	2	2		3.000	10.33	8.33	2.00	3.00	9.00	8.00	

	Person	Profile	POF	PJF	MAT	PostMat	BFI_EXT	BFI_AGR	BFI_OPE	BirthYr	Gender	WorkExp	ExpSm	ExpNew	ExpStudy
1	1	c	11.000	9.667	1.571	3.727	3.000	3.222	3.300	1989	1	4	1	2	1
2	1	c	10.333	10.000	1.571	3.727	3.000	3.222	3.300	1989	1	4	1	2	1
3	1	d	9.000	8.667	1.571	3.727	3.000	3.222	3.300	1989	1	4	1	2	1
4	1	d	9.333	7.000	1.571	3.727	3.000	3.222	3.300	1989	1	4	1	2	1

In the top screen-shot – where the red lines indicate a cut picture to show a representative amount of the 80 columns – each row represents an individual respondent.

In the bottom screen-shot, each row represents one conjoint profile, and because of the replicated design, each profile is shown twice. Note that while the POF and PJF values change, the “Person” value remains constant, representing the respondent, and the individual variables including control variables also remain constant as they don’t vary within-subject. Each “Person” is thus represented in 32 rows, leading to the 6912 (32 profiles, n=216) rows.

Figure 4. Data Reorganization

Step 1, One-Way ANOVA, POF. To analyze the main effects of organizational attributes on perceived person-organization and person-job fit, I first perform a one-way ANOVA, whereby main effects are shown if there is systematic within- and between-subject variance in person-organization fit. Examination of the moderating relationship between the individual attributes and organization attributes as hypothesized (H1b-H5b, H5c) requires significant variance in the level-1 slope coefficient across groups and this variance has to be significantly related to the individual attributes.

The first condition specifies systematic within- and between-subject variance in person-organization fit (POF). The very nature of this dataset implies that separating the variance in POF into its within- and between-group components is necessary. To separate the variance in HLM, the following set of equations is estimated:

Level 1: $POF_i = \pi_0 + e$

Level 2: $\pi_0 = \beta_{00} + r_0$

Where:

$$\pi_0 = \text{mean POF}$$

$$\beta_{00} = \text{grand mean POF}$$

$$\text{Variance (e)} = \sigma^2 = \text{within-individual variance in POF}$$

$$\text{Variance (r}_0\text{)} = \tau_{00} \quad \text{between-individual variance in POF}$$

In the Level-1 equation above, POF is regressed onto a constant unit vector which is implied when no predictors are specified. Since there are no additional predictors in the model, the π_0 parameter will be equal to that group's mean level of POF. The Level-2 model regresses each group's mean POF onto a constant, meaning π_0 is

regressed onto a unit vector resulting in a β_{00} parameter equal to the grand mean of POF (ie., the mean of the group means, π_0).

Although HLM does not provide a significance test for the within-subject variance (σ^2), it does provide a significance test for the between-subject variance (τ_{00}). In addition, the ratio of the between-subject variance to the total variance can be described as an intra-class correlation. In the model above, the total variance in POF has been decomposed into its within- and between-subject components:

$$\text{Variance(POF)} = \text{Variance}(e+r_0) = \tau_{00} + \sigma^2 \quad (1)$$

Therefore, an intra-class correlation (ρ) can be computed by investigating the following ratio:

$$\rho = \tau_{00} / (\tau_{00} + \sigma^2) \quad (2)$$

This intra-class correlation represents a ratio of the between-subject variance in POF to the total variance in POF; in other words, proportion of variance in fit attributions that was accounted for by different participants. In this one-way ANOVA model, τ_{00} was 1.2367 and σ^2 was 5.21937, thus in this case, $\rho = 19.16\%$.

This one-way ANOVA model has therefore provided the following pieces of information regarding POF: The amount of variance residing both within- and between-subjects, and the intra-class correlation specifying the percentage of the total variance residing between subjects.

Step 2, Random Coefficient Regression Model, POF. Once the one-way ANOVA has been completed and the degree of within- and between-subject variance in POF is determined, Hofmann (1997) suggests investigating whether there is significant variance in the intercepts and slopes across subjects. If there is significant variance

across subjects in the intercepts, this indicates initial support for main effects for the individual-level (ie., personality and values) variables – something that was not hypothesized and is not expected. If there is significant variance across subjects in the slopes, this provides preliminary support for the moderating hypotheses. This model also directly tests for main effects. The random coefficient regression model takes on the following form:

Level 1: $\mathbf{POF}_i = \pi_0 + \pi_1(\text{SIZE}) + \pi_2(\text{AGE}) + \pi_3(\text{BOYSCOUT}) + \pi_4(\text{INNOVAT}) + \pi_5(\text{DOMIN}) + \pi_6(\text{STYLE}) + \pi_7(\text{DTR}) + e$

Level 2:

$$\begin{aligned} \pi_0 &= \beta_{00} + r_0 \\ \pi_1 &= \beta_{10} + r_1 \\ \pi_2 &= \beta_{20} + r_2 \\ \pi_3 &= \beta_{30} + r_3 \\ \pi_4 &= \beta_{40} + r_4 \\ \pi_5 &= \beta_{50} + r_5 \\ \pi_6 &= \beta_{60} + r_6 \\ \pi_7 &= \beta_{70} + r_7 \end{aligned}$$

Where:

$$\beta_{00} = \text{mean of the intercepts across subjects}$$

$$\beta_{10}, \beta_{20}, \beta_{30}, \beta_{40}, \beta_{50}, \beta_{60}, \beta_{70} = \text{mean of the slopes across subjects (Test of main effects)}$$

$$\text{Variance (e)} = \sigma^2 = \text{Level-1 residual variance}$$

$$\text{Variance (r}_0\text{)} = \tau_{00} = \text{variance in intercepts}$$

$$\text{Variance (r}_1\text{... r}_7\text{)} = \tau_{11}, \tau_{77} = \text{variance in slopes}$$

Because, in this model, there are no level-2 predictors of any of the organizational variables (ie., $\pi_1 \dots \pi_7$) or the intercept (ie., π_0), the level-2 regression equations are simply equal to intercept terms and residuals. In this form, the β_{i0} parameters represent the level-1 coefficients averaged across groups meaning they represent the pooled π_i parameters. Similarly, given that all π_i are regressed onto constants, the

variance of the level-2 residual terms (ie., $r_0 \dots r_7$) represent the between-subject variance in the level-1 parameters.

HLM (Raudenbush, Bryk and Congdon, 2009) provides a t-test related to the β_{i0} parameters whereby a significant t-value indicates that the parameter departs significantly from zero. For example, the case of the β_{30} parameter, this t-test provides a direct test of whether Boyscout is significantly related to POF (ie., direct effect). Note that this test is actually assessing whether the pooled level-1 slope between Boyscout and POF differs significantly from zero. Thus, this test investigates whether, on average, the relationship between Boyscout and POF is significant.

HLM also provides a chi-square test for the residual variances (ie., $r_0 \dots r_7$). These chi-square tests indicate whether the variance components differ significantly from zero and provide a direct test of whether there is significant variance in the level-1 intercept and slopes. The results of these tests are shown in Table 4, on the following page.

As shown in Table 4, there is evidence that each organizational attribute except for Age, is significantly related to POF. Because the organizational attributes were coded as 0=High, 1=Low, negative β_{i0} coefficients must be interpreted with care. For instance, $\beta_{30} = -2.3118$ can be interpreted that, ceteris paribus at this stage of the model, without individual attributes included, a single unit change in Boyscout (ie., from High Boyscout to Low Boyscout) results in a 2.3118 drop in POF. Further discussion of these results will follow in the Discussion section, as examining the results in too much depth at this early stage of analysis could be misleading.

Estimation of fixed effects (with robust standard errors)

Parameter	Coefficient	Standard Error	T-ratio
β_{00}	5.9921***	0.0803	74.607
β_{10} (Size)	0.1799***	0.0506	3.556
β_{20} (Age)	0.0740	0.0395	1.873
β_{30} (Boyscout)	-2.3118***	0.1270	-18.203
β_{40} (Innovativeness)	-0.5333***	0.0450	-11.853
β_{50} (Dominance)	-0.3215***	0.0408	-7.886
β_{60} (Stylish)	-0.6082***	0.0419	-14.500
β_{70} (DTR)	-0.8689***	0.0691	-12.571

* p \leq .05, ** p \leq .01, *** p \leq .001, Approx. df =215

Estimation of variance components

Residual	Standard Deviation	Variance Component	Chi-square
r ₀	1.1536	1.3307	4353.101***
r ₁	0.5296	0.2804	431.888***
r ₂	0.2636	0.0695	263.615*
r ₃	1.7955	3.2237	2721.228***
r ₄	0.4083	0.1668	341.563***
r ₅	0.3347	0.1120	280.431**
r ₆	0.4091	0.1674	296.766***
r ₇	0.8772	0.7695	805.895***

* p \leq .05, ** p \leq .01, *** p \leq .001, df =215

Table 4. Random Coefficient Regression Model Tests, POF

The chi-square tests showed significant variance in both the level-1 intercept and slopes for all residuals, meaning that the variance in the intercepts and slopes across subjects is in fact significantly different from zero. As mentioned above, this indicates initial support for both the existence of main and moderating effects of individual-level variables; in other words, these effects are not yet shown but are similarly not yet disproven – not surprising given that the individual-level variables are not yet included in the model.

In addition to estimating the fixed (β 's) and random (r 's) effects, HLM also estimates the level-1 residual variance (ie., the variance in e or σ^2). In the one-way ANOVA model, σ^2 was equal to the within-subject variance in POF. Since the random regression model adds level-1 predictors, σ^2 is now equal to the level-1 residual variance. Comparing these two values of σ^2 can, therefore, provide an estimate of the level-1 variance in POF accounted for by the organizational attributes. More specifically, one can obtain the R^2 for POF⁶ by computing the following ratio:

$$R^2 \text{ for level-1 model} = (\sigma^2_{\text{oneway ANOVA}} - \sigma^2_{\text{random regression}}) / \sigma^2_{\text{oneway ANOVA}} \quad (3)$$

The σ^2 in the one-way ANOVA model was 5.2194 and the σ^2 in the random regression model was 2.2124. This leaves us with an $R^2 = 0.5761$. This estimation of R^2 comes from transferring the customary treatment of explained variance as in multiple linear regression. It treats proportional reductions in the estimated variance components as analogues of R^2 values (Snijders and Boskers 1994). This ratio compares the amount of variance accounted for by the organizational attributes in the numerator to the total within-subject variance in POF in the denominator. Thus, this

⁶ This measure of R^2 is also called a pseudo- R^2 . An alternative way to estimate a pseudo- R^2 is also found in Snijders and Bosker (1994)

ratio represents the percentage of the level-1 variance in POF accounted for by organizational attributes.

Step 3, Intercepts-As-Outcomes Model, POF. Since there was significant variance in the intercept term, the intercepts as outcomes model assesses whether this variance is significantly related to the individual attributes of respondents. Thus, this model directly tests whether the variance in the intercept is significantly predicted by individual attributes. As mentioned when building the random coefficient regression model, I did not hypothesize nor do I expect the variance in the intercept to be significantly predicted by the individual attributes. The intercepts-as-outcomes model takes the following form:

Level 1: $POF_i = \pi_0 + \pi_1(SIZE) + \pi_2(AGE) + \pi_3(BOYSCOUT) + \pi_4(INNOVAT) + \pi_5(DOMIN) + \pi_6(STYLE) + \pi_7(DTR) + e$

Level 2: $\pi_0 = \beta_{00} + \beta_{01}(BFI_AGR) + \beta_{02}(BFI_OPE) + \beta_{03}(TRADMAT) + \beta_{04}(TRADPM) + r_0$

$\pi_1 = \beta_{10} + r_1$

$\pi_2 = \beta_{20} + r_2$

$\pi_3 = \beta_{30} + r_3$

$\pi_4 = \beta_{40} + r_4$

$\pi_5 = \beta_{50} + r_5$

$\pi_6 = \beta_{60} + r_6$

$\pi_7 = \beta_{70} + r_7$

Where:

$\beta_{00} =$ Level-2 intercept

$\beta_{01}, \beta_{02}, \beta_{03}, \beta_{04} =$ Level-2 slopes

$\beta_{10}, \beta_{20}, \beta_{30}, \beta_{40}, \beta_{50}, \beta_{60}, \beta_{70} =$ mean (pooled) slopes

Variance (e) = $\sigma^2 =$ Level-1 residual variance

Variance (r_0) = $\tau_{00} =$ variance in intercepts

Variance ($r_1 \dots r_7$) = $\tau_{11} \dots \tau_{77} =$ variance in slopes

This model is similar to the random regression model discussed above, with the addition of individual level variables (ie., Traditional Materialist, Traditional Postmaterialist, and the BFI measures of Agreeableness, and Openness) as level-2 predictors of π_0 . Therefore, the t-test associated with the β_{0j} parameters provides a direct test that a significant relationship exists between individual attributes and POF after controlling for organizational level attributes. For instance, the parameter β_{01} tests the relationship between agreeableness and POF after controlling for organizational attributes. As shown in Table 5, below, there is no support for main effects between individual attributes and POF, as none of the individual variables parameters had a significant T-ratio.

Given that the level-2 equation for π_0 now includes predictors, the variance in the r_0 parameter (ie., τ_{00}) represents the residual variance in π_0 across subjects. If the chi-square test for this parameter is significant, it indicates that there remains systematic level-2 variance that could be modeled by additional level-2 predictors. All other parameters take on the same meaning as they did under the estimation of the random regression model, that is, a significant chi-square value for $r_1 \dots r_7$ indicates significant variance in the level-1 slope.

Estimation of fixed effects (with robust standard errors)

Parameter	Coefficient	Standard Error	T-ratio
β_{00}	5.9921***	0.0804	74.539
β_{01} (Agreeableness)	0.1209	0.1438	0.843
β_{02} (Openness)	0.0086	0.1356	0.063
β_{03} (Traditional Materialist)	0.1457	0.1652	0.882
β_{04} (Traditional Postmaterialist)	0.0462	0.1897	0.244

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, Approx. $df = 211$

Estimation of variance components

Residual	Standard Deviation	Variance Component	Chi-square
r_0	1.1643	1.3557	4361.164***
r_1	0.5296	0.2804	431.899***
r_2	0.2639	0.0696	263.622*
r_3	1.7955	3.2237	2721.295***
r_4	0.4084	0.1668	341.571***
r_5	0.3349	0.1122	280.437**
r_6	0.4090	0.1673	296.773***
r_7	0.8772	0.7694	805.915***

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, $df = 215$, except r_0 , $df = 211$

Table 5. Intercepts-As-Outcomes Model Tests, POF

Step 4, Slopes-As-Outcomes Model, POF. Since there was significant variance in the Level-1 slope as shown in the previous model, the next step is to examine whether the variance in the slope across subjects is significantly related to the individual attributes examined. Therefore, this model provides a direct test of the necessary precondition for moderating relationships, that is, that variance in the slope is significantly predicted by individual attributes; this also serves as a test of H1b-H4b, and H5c.

The slopes-as-outcomes model takes the following form:

Level 1: $POF_i = \pi_0 + \pi_1(SIZE) + \pi_2(AGE) + \pi_3(BOYSCOUT) + \pi_4(INNOVAT) + \pi_5(DOMIN) + \pi_6(STYLE) + \pi_7(DTR) + e$

Level 2: $\pi_0 = \beta_{00} + \beta_{01}(BFI_OPE) + \beta_{02}(BFI_AGR) + \beta_{03}(TRADMAT) + \beta_{04}(TRADPM) + r_0$

$\pi_1 = \beta_{10} + r_1$

$\pi_2 = \beta_{20} + r_2$

$\pi_3 = \beta_{30} + \beta_{31}(TRADMAT) + \beta_{32}(TRADPM) + r_3$

$\pi_4 = \beta_{40} + \beta_{41}(BFI_OPE) + r_4$

$\pi_5 = \beta_{50} + \beta_{51}(TRADMAT) + \beta_{52}(TRADPM) + r_5$

$\pi_6 = \beta_{60} + \beta_{61}(TRADMAT) + \beta_{62}(TRADPM) + r_6$

$\pi_7 = \beta_{70} + \beta_{71}(BFI_AGR) + r_7$

Where:

$\beta_{00} =$	Level-2 intercept
$\beta_{01}, \beta_{02}, \beta_{03}, \beta_{04} =$	Level-2 slope
$\beta_{10}, \beta_{20}, \beta_{30}, \beta_{40}, \beta_{50}, \beta_{60}, \beta_{70} =$	Level-2 intercepts
$\beta_{31}, \beta_{32}, \beta_{41}, \beta_{51}, \beta_{52}, \beta_{61}, \beta_{62}, =$	Level-2 slopes (<i>Test of interaction effects</i>)
Variance (e) = $\sigma^2 =$	Level- 1 residual variance
Variance (r ₀) = $\tau_{00} =$	residual intercept variance
Variance (r ₁ ... r ₇) = $\tau_{11}... \tau_{77} =$	residual slope variance

The differences between this model and the intercepts-as-outcomes model above are that individual variables (ie., Traditional Materialism, Traditional Postmaterialism, Openness and Agreeableness) are now included as predictors of the π_{ij} parameters and as a result, the r_i variance is now the residual variance in the π_{ij} parameters across subjects instead of the total variance across subjects. Once again, if the chi-square test associated with this parameter variance is significant, it indicates that there remains systematic variance in the π_{ij} parameters that could be modeled by additional level-2 predictors. In addition, the t-tests associated with the $\beta_{31}... \beta_{71}$ parameters provide a direct test of Hypotheses H1b-4b and 5c. These hypotheses represent cross-level

moderators or cross-level interactions because an individual level variable is hypothesized to moderate the relationship between two organizational-level variables (ie., POF and an organizational attribute).

As shown in Table 6, on the following page, the chi-square test associated with the residual variance parameters is significant for all parameters. This indicates that the relationships proposed in this model are not sufficient to account for all variance. This is not a surprise, and it was neither my ambition nor intention to fully model all variables that could have an impact on POF, but rather to examine specific hypothesized relationships.

The values for $\beta_{31} \dots \beta_{71}$ indicate partial support for the hypothesized moderating relationships. To better understand the relationships uncovered, it is instructive to plot the significant interactions.

Estimation of fixed effects (with robust standard errors)

Parameter	Coefficient	Standard Error	T-ratio	Approx d.f.
β_{00}	5.9921***	0.0804	74.573	211
β_{10} (Size)	0.1799***	0.0506	3.556	215
β_{20} (Age)	0.0740	0.0395	1.873	215
β_{30} (Boyscout)	-2.3118***	0.1261	-18.328	213
β_{40} (Innovativeness)	-0.5333***	0.0444	-12.013	214
β_{50} (Dominance)	-0.3215***	0.0408	-7.943	213
β_{60} (Stylish)	-0.6082***	0.0419	-14.500	213
β_{70} (DTR)	-0.8689***	0.0684	-12.705	214
β_{31} (Boyscout X TRADMAT)	0.0677	0.2763	0.245	213
β_{32} (Boyscout X TRADPM)	-0.4619	0.3242	-1.425	213
β_{41} (Innovativeness X Openness)	-0.2186**	0.0794	-2.753	214
β_{51} (Dominance X TRADMAT)	-0.1991*	0.0961	-2.072	213
β_{51} (Dominance X TRADPM)	-0.0560	0.0823	-0.680	213
β_{61} (Stylish X TRADMAT)	-0.0331	0.0836	-0.396	213
β_{61} (Stylish X TRADPM)	-0.0484	0.0880	-0.550	213
β_{71} (DTR X Agreeableness)	-0.1476	0.1003	-1.472	214

* p \leq .05, ** p \leq .01, *** p \leq .001

Estimation of variance components

Residual	Standard Deviation	Variance Component	Chi-square	d.f.
r ₀	1.1642	1.3553	4358.087***	211
r ₁	0.5295	0.2804	431.981***	215
r ₂	0.2625	0.0689	263.671*	215
r ₃	1.7906	3.2064	2684.592***	213
r ₄	0.3946	0.1557	330.106***	214
r ₅	0.3367	0.1133	275.884**	213
r ₆	0.4067	0.1654	295.627***	213
r ₇	0.8732	0.7624	797.546***	214

* p \leq .05, ** p \leq .01, *** p \leq .001

Table 6. Slopes-As-Outcomes Model Tests, POF

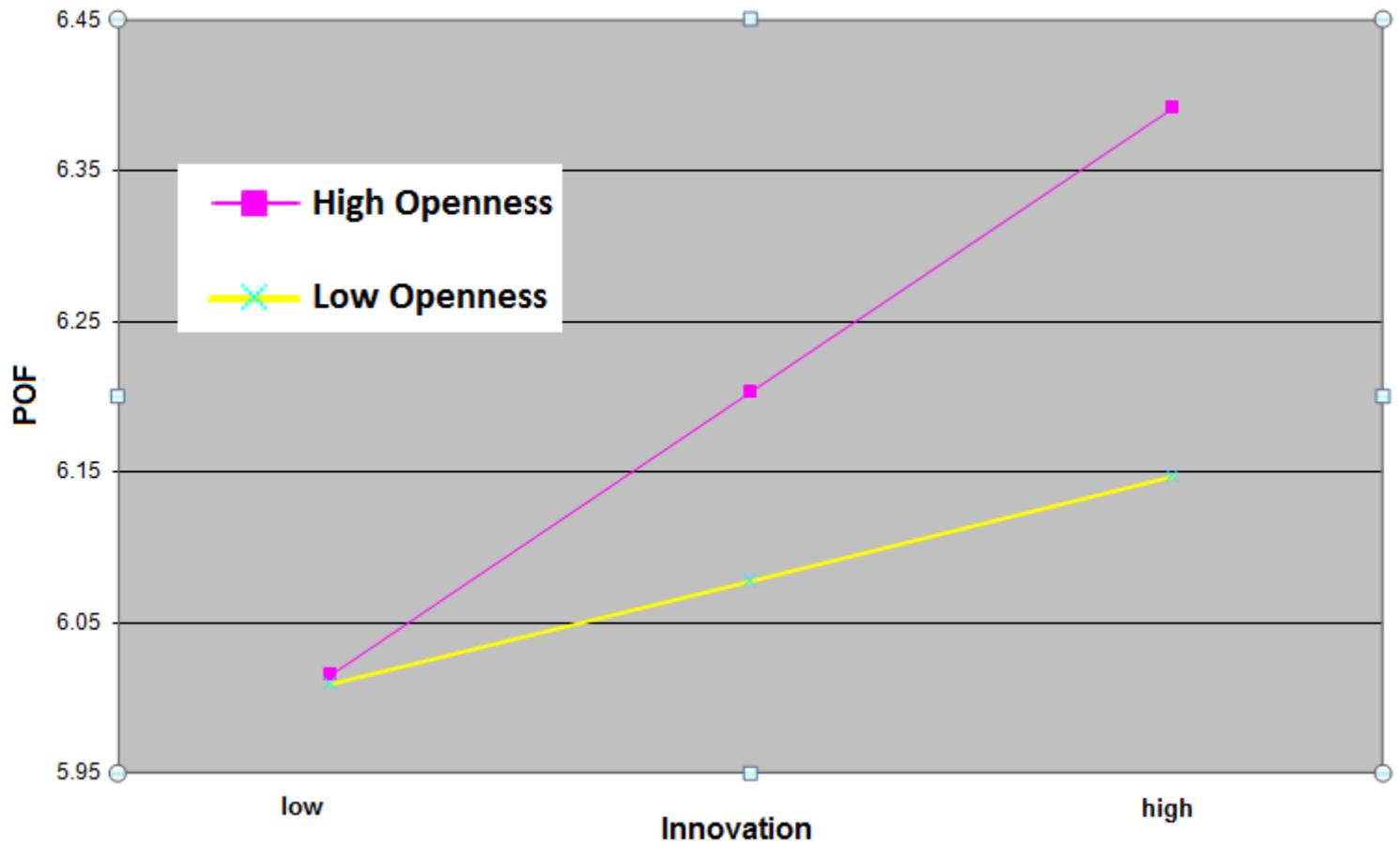


Figure 5. Innovation X Openness

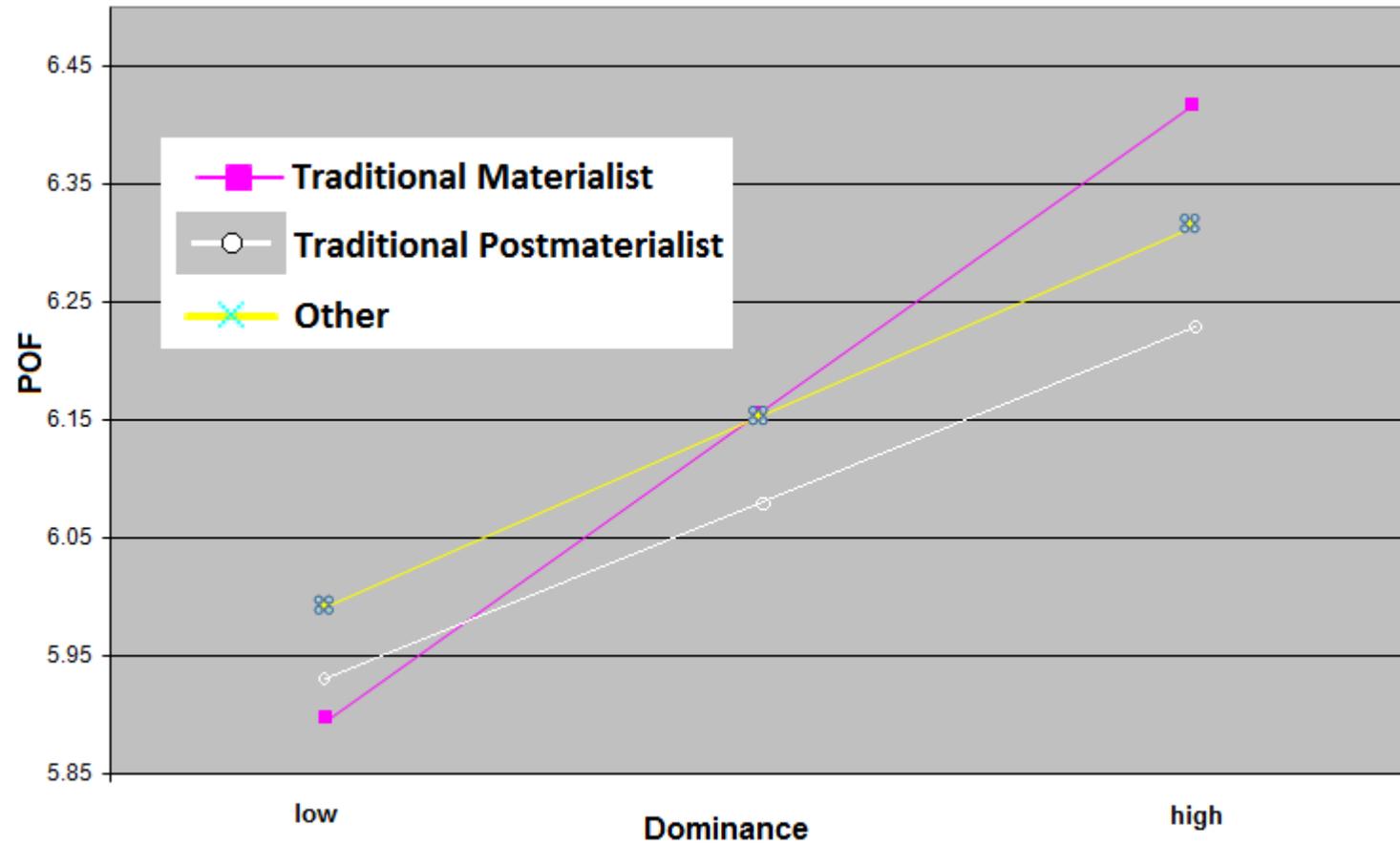


Figure 6 – Dominance X Materialism

The cross-level interaction shown in Figure 5 represents how the within-subject relationship between Innovation and POF changes as a function of an individual's level of Openness to Experience. Similarly, Figure 6 represents how the within-subject relationship between Dominance and POF changes as a function of an individual's level of Materialism and Postmaterialism.

Hypothesis 1b predicted that Postmaterialism would moderate the relationship between an organization's attribution as Boyscout and perceived Person-Organization fit. The results of the models described above revealed that the interaction was not significant ($\beta_{31} = -0.068$, $p = .807$; $\beta_{32} = -0.462$, $p = .156$), thus Hypothesis 1b was not supported.

Hypothesis 2b predicted that Openness to Experience would moderate the relationship between an organization's attribution as Innovative and perceived Person-Organization fit. The results of the models described above showed a significant cross-level interaction ($\beta_{41} = -0.219$, $p < .05$) and the plot in Figure 5 shows that this interaction is as predicted whereby individuals high in Openness to Experience perceived greater levels of fit with organizations considered Innovative than did those individuals low in Openness to Experience. Therefore, Hypothesis 2b was supported.

Hypothesis 3b predicted that Materialism would moderate the relationship between an organization's attribution as Stylish and perceived Person-Organization fit. The results of the models described above revealed that the interaction was not significant ($\beta_{61} = -0.033$, $p = .692$; $\beta_{62} = -0.048$, $p = .583$), thus Hypothesis 3b was not supported.

Hypothesis 4b predicted that Materialism would moderate the relationship between an organization's attribution as Dominant and perceived Person-Organization fit. The results of the models described above showed a significant cross-level interaction for Traditional Materialism ($\beta_{51} = -0.199$, $p < .05$) and no significant cross-level interaction for Traditional Postmaterialism ($\beta_{52} = -0.056$, $p = .497$). The plot in Figure 6 shows that this interaction is as predicted whereby Traditional Materialists perceived greater levels of fit with organizations considered Dominant than did Traditional Postmaterialists. Therefore, Hypothesis 4b was supported.

Hypothesis 5c predicted that Agreeableness would moderate the relationship between an organization's characteristic of having Defined Tasks and Roles and perceived Person-Organization fit. The results of the models described above revealed that the interaction was not significant ($\beta_{71} = -0.148$, $p = .142$), thus Hypothesis 5c was not supported.

As with the one-way ANOVA model, it is worthwhile to calculate an intra-class correlation (i.e., equations [1] and [2]). In the slopes-as-outcomes model, τ_{00} was 1.35534 and σ^2 was 2.21190, thus in this case, $\rho = 0.3799$, meaning that over one-third of variance in the model is explained between-subjects.

Though an R^2 value is not a suitable measure of variance explained for this model, because there is not a single level-2 error term in this model, to understand the percentage of variance accounted for by each source of variance, calculating the omega-square (ω^2) statistical index is appropriate (Hortin and Sheriff 1981):

Viewed either as a proportion of variance in Y accounted for by X or as a relative reduction of uncertainty, this index, ω^2 , can assume values ranging from zero to unity... When ω^2 is 1.0, this tells us that the independent variable lets us know the dependent variable exactly. On

the other hand, when ω^2 is zero, the knowledge of the independent variable does not reduce in any way our uncertainty about the dependent variable. In general, we will say that the higher the value of ω^2 , the greater the practical significance for the association of X and Y.
-- McNamara, 1978: 50-51 as quoted in (Hortin & Sheriff, 1981: 228)

The American Psychological Association (APA) Task Force on Statistical Inference urged researchers to pay much less attention to accept–reject decisions such as significance, and to focus more on measures of effect size such as omega-squared, stating that “reporting and interpreting effect sizes . . . is essential to good research” (Wilkinson and The Task Force on Statistical Inference 1999, 599); further, significance levels do not reflect the magnitude of an effect or the strength of a relationship. By examining the ω^2 values, effect size is presented alongside the traditional significance levels.

Although two or more organizational attributes may significantly affect an individual’s perception of fit, it is unlikely that those characteristics will be of equal importance. Therefore, omega squared was used to assess the relative importance of the organizational attributes for each individual. Reporting the ω^2 is common in conjoint studies (eg., Shepherd and Zacharakis 1999; Leslie, Ettenson, and Cumsille 2000; Shepherd, Ettenson, and Crouch 2000) as a way to assess the relative importance of the variables under study – in this case, the relative salience of organizational personality attributes for individual’s assessment of fit.

Hays (1973) suggested calculating ω^2 by using the following formula:

$$\omega^2 = \frac{SS_{BG} - (k-1)MS_{WG}}{SS_{TOTAL} + MS_{WG}} \quad (5)$$

where SS_{BG} is the sum of squares between groups, k is the number of levels of the independent variable, MS_{WG} is the mean square within groups, and SS_{TOTAL} is the total sum of squares. Neither the HLM program nor the Mixed Model function of SPSS displays the values for the sum of squares, therefore I use McNamara's (1971: 51) alternate version to estimate ω^2 :

$$\text{est. } \omega^2 = \frac{(k-1) \cdot F - (k-1)}{(k-1) \cdot F + (N-k) + 1} \quad (6)$$

where F is the numerical value for the ANOVA test, N is the total number of individuals in the sample, and k is the number of levels of the independent variable. For each independent variable, there are 2 levels and $N=6912$, representing the 6912 decisions made, nested in the 216 respondents. Estimated omega square levels are shown in Table 7, below:

Variable	k	F	N	ω^2
Size	2	16.286	6912	0.002207
Age	2	2.757	6912	0.000254
Boyscout	2	2651.928	6912	0.277209
Innovativeness	2	149.385	6912	0.021017
Dominance	2	52.162	6912	0.007348
Stylish	2	185.853	6912	0.026047
DTR	2	384.526	6912	0.052570

Table 7 – Omega Square (ω^2) for Person-Organization Fit Variables

On average, the most important organizational attributes for individuals in their assessment of person-organization fit is that an organization is considered to be Boyscout ($\omega^2 = 0.28$), has defined tasks and roles ($\omega^2 = 0.05$) and is considered Stylish ($\omega^2 = 0.03$). Relatively speaking, when assessing person-organization fit, individuals place considerably higher importance on an organization's personality characteristic

of Boy Scout than they do on any other characteristic as it accounts for over a quarter of variance in person-organization fit perceptions.

A similar four-model approach was used to examine the data with respect to person-job fit (PJF) as described below. The error terms have the same meanings as in the models outline above.

Step 1, One-Way ANOVA, PJF. As with the earlier examination of person-organization fit, here, the first condition specifies systematic within- and between- individual variance in person-job fit (PJF). To separate the variance, the following set of equations is estimated:

Level 1: $PJF_i = \pi_0 + e$

Level 2: $\pi_0 = \beta_{00} + r_0$

In this model, the intra-class correlation represents a ratio of the between-individual variance in PJF to the total variance in PJF; in other words, proportion of variance in fit attributions that was accounted for by different participants. In this one-way ANOVA model, τ_{00} was 1.35461 and σ^2 was 5.10218, thus in this case, $\rho = 20.98\%$.

Step 2, Random Coefficient Regression Model, PJF. The random coefficient model which directly tests for main effects takes on a nearly identical form when examining PJF as when examining POF as only the dependent variable has changed.

Level 1: $PJF_i = \pi_0 + \pi_1(\text{SIZE}) + \pi_2(\text{AGE}) + \pi_3(\text{BOYSCOUT}) + \pi_4(\text{INNOVAT}) + \pi_5(\text{DOMIN}) + \pi_6(\text{STYLE}) + \pi_7(\text{DTR}) + e$

Level 2: $\pi_0 = \beta_{00} + r_0$

$\pi_1 = \beta_{10} + r_1$

$\pi_2 = \beta_{20} + r_2$

$\pi_3 = \beta_{30} + r_3$

$\pi_4 = \beta_{40} + r_4$

$\pi_5 = \beta_{50} + r_5$

$\pi_6 = \beta_{60} + r_6$

$\pi_7 = \beta_{70} + r_7$

Estimation of fixed effects (with robust standard errors)

Parameter	Coefficient	Standard Error	T-ratio
β_{00}	5.8910***	0.084	70.527
β_{10} (Size)	0.2471***	0.051	4.860
β_{20} (Age)	0.0446	0.040	1.109
β_{30} (Boyscout)	-2.0983***	0.112	-18.660
β_{40} (Innovativeness)	-0.5893***	0.042	-13.901
β_{50} (Dominance)	-0.3629***	0.041	-8.927
β_{60} (Stylish)	-0.7156***	0.046	-15.602
β_{70} (DTR)	-1.0543***	0.071	-14.841

* p≤ .05, ** p≤ .01, *** p≤ .001, Approx. df =215

Estimation of variance components

Residual	Standard Deviation	Variance Component	Chi-square
r ₀	1.1999	1.4398	4383.050***
r ₁	0.5135	0.2637	405.792***
r ₂	0.2531	0.0640	254.019*
r ₃	1.5644	2.4472	1986.034***
r ₄	0.3264	0.1066	282.199**
r ₅	0.3411	0.1164	259.527*
r ₆	0.4638	0.2151	330.409***
r ₇	0.8997	0.8094	792.491***

* p≤ .05, ** p≤ .01, *** p≤ .001, df=215

Table 8 – Random Coefficient Regression Model Tests, PJF

As shown in Table 8, as with POF, there is evidence that each organizational attribute except for Age, is significantly related to PJF. The chi-square tests showed significant variance in both the level-1 intercept and slopes for all residuals. Again, this indicates initial support for both the existence of main and moderating effects of individual-level variables.

Using equation (3) to calculate the R^2 for this model, the σ^2 in the one-way ANOVA model was 5.10218 and the σ^2 in the random regression model was 2.37658.

$$R^2 \text{ for level-1 model} = (\sigma^2_{\text{oneway ANOVA}} - \sigma^2_{\text{random regression}}) / \sigma^2_{\text{oneway ANOVA}} \quad (3)$$

This leaves us with an $R^2 = 0.5342$. Again, this value represents that over 53% of the level-1 variance in PJF is accounted for by organizational attributes.

Step 3, Intercepts-As-Outcomes Model, PJF. As above, since there was significant variance in the intercept term, the intercepts as outcomes model assesses whether this variance is significantly related to the individual attributes of group members. Similar to the analysis of POF, I did not hypothesize nor do I expect the variance in the intercept to be significantly predicted by the individual attributes. The intercepts-as-outcomes model takes the following form:

Level 1: $PJF_i = \pi_0 + \pi_1(SIZE) + \pi_2(AGE) + \pi_3(BOYSCOUT) + \pi_4(INNOVAT) + \pi_5(DOMIN) + \pi_6(STYLE) + \pi_7(DTR) + e$

Level 2: $\pi_0 = \beta_{00} + \beta_{01}(BFI_OPE) + r_0$

$\pi_1 = \beta_{10} + r_1$

$\pi_2 = \beta_{20} + r_2$

$\pi_3 = \beta_{30} + r_3$

$\pi_4 = \beta_{40} + r_4$

$\pi_5 = \beta_{50} + r_5$

$\pi_6 = \beta_{60} + r_6$

$\pi_7 = \beta_{70} + r_7$

Since the only moderating hypothesis related to PJF is between the organizational attribute of Defined Tasks and Roles and Openness to Experience, this model adds only the individual level variable of Openness to Experience as a level-2 predictor of π_0 . Therefore, the t-test associated with the β_{01} parameter provides a direct test that a significant relationship exists between Openness to Experience and PJF after controlling for organizational level attributes. As shown in Table 9, below, there is no support for main effects between individual attributes and PJF, as the parameter for Openness to Experience did not have a significant T-ratio.

Given that the level-2 equation for π_0 now includes the individual predictor, the variance in the r_0 parameter (ie., τ_{00}) represents the residual variance in π_0 across individuals. If the chi-square test for this parameter is significant, it indicates that there remains systematic level-2 variance that could be modeled by additional level-2 predictors. All other parameters take on the same meaning as they did under the estimation of the random regression model, that is, a significant chi-square value for $r_1 \dots r_7$ indicates significant variance in the level-1 slope.

Estimation of fixed effects (with robust standard errors)

Parameter	Coefficient	Standard Error	T-ratio
β_{00}	5.8910***	0.0831	70.923
β_{01} (Agreeableness)	-0.1805	0.1504	-1.200

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, Approx. $df=214$

Estimation of variance components

Residual	Standard Deviation	Variance Component	Chi-square
r_0	1.1952	1.4285	4334.254***
r_1	0.5135	0.2637	405.786***
r_2	0.2530	0.0640	254.016*
r_3	1.5644	2.4472	1986.004***
r_4	0.3263	0.1065	282.195**
r_5	0.3417	0.1168	259.523*
r_6	0.4634	0.2147	330.404***
r_7	0.8997	0.8095	792.480***

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, $df=215$, except r_0 , $df=214$

Table 9 – Intercepts-As-Outcomes Model Tests, PJF

Step 4, Slopes-As-Outcomes Model, PJF. As with my examination of POF, there was significant variance in the Level-1 slope, thus the next step is to examine whether the variance in the slope across individuals is significantly related to the individual attributes examined. This will serve as a test of H5b.

The slopes-as-outcomes model for person-job fit takes the following form:

Level 1: $PJF_i = \pi_0 + \pi_1(SIZE) + \pi_2(AGE) + \pi_3(BOYSCOUT) + \pi_4(INNOVAT) + \pi_5(DOMIN) + \pi_6(STYLE) + \pi_7(DTR) + e$

Level 2: $\pi_0 = \beta_{00} + \beta_{01}(BFI_OPE) + r_0$

$\pi_1 = \beta_{10} + r_1$

$\pi_2 = \beta_{20} + r_2$

$\pi_3 = \beta_{30} + r_3$

$\pi_4 = \beta_{40} + r_4$

$\pi_5 = \beta_{50} + r_5$

$\pi_6 = \beta_{60} + r_6$

$\pi_7 = \beta_{70} + \beta_{71}(BFI_OPE) + r_7$

Again, if the chi-square test associated with this parameter variance is significant, it indicates that there remains systematic variance in the π_7 parameter that could be modeled by additional level-2 predictors. The t-test associated with the β_{71} parameters provides a direct test of the PJF cross-level moderation Hypothesis 5b.

As shown in Table 10, below, the chi-square test associated with the residual variance parameters is significant for all parameters. This indicates that the relationships proposed in this model are not sufficient to account for all variance and again is not surprising given my intentions in conducting this study. The value for β_{71} indicates no support for the hypothesized moderating relationship between an individual's Openness to Experience and an organization's level of Defined Roles and Tasks in the context of person-job fit.

Hypothesis 5b predicted that Openness to Experience would moderate the relationship between an organization's characteristic of having Defined Tasks and Roles and perceived Person-Job fit. The results of the models described above revealed that the interaction was not significant ($\beta_{71} = -0.1835$, $p = .116$), thus Hypothesis 5b was not supported.

Estimation of fixed effects (with robust standard errors)

Parameter	Coefficient	Standard Error	T-ratio	Approx d.f.
β_{00}	5.8910***	0.0831	70.879	214
β_{10} (Size)	0.2471***	0.0508	4.860	215
β_{20} (Age)	0.0446	0.0402	1.109	215
β_{30} (Boyscout)	-2.0983***	0.1125	-18.660	215
β_{40} (Innovativeness)	-0.5893***	0.0424	-13.901	215
β_{50} (Dominance)	-0.3629***	0.0407	-8.927	215
β_{60} (Stylish)	-0.7156***	0.0459	-15.602	215
β_{70} (DTR)	-1.0543	0.0712	-14.809	214
β_{71} (DTR X Openness)	0.1835	0.1162	1.579	214

* p \leq .05, ** p \leq .01, *** p \leq .001

Estimation of variance components

Residual	Standard Deviation	Variance Component	Chi-square	d.f.
r_0	1.1960	1.4305	4341.270***	214
r_1	0.5136	0.2638	405.949***	215
r_2	0.2533	0.0641	254.117*	215
r_3	1.5644	2.4474	1986.801***	215
r_4	0.3264	0.1066	282.308**	215
r_5	0.3434	0.1179	259.627*	215
r_6	0.4647	0.2160	330.537***	215
r_7	0.9049	0.8189	796.220***	214

* p \leq .05, ** p \leq .01, *** p \leq .001

Table 10 – Slopes-As-Outcomes Model Tests, PJF

As with the examination of POF, calculating an intra-class correlation here is worthwhile. In the slopes-as-outcomes model, τ_{00} was 1.43046 and σ^2 was 2.37566, thus in this case, $\rho=0.3758$ meaning that nearly 38% variance in the model is explained between-individuals. In this slopes-as-outcomes model, it would be possible to calculate an R^2 as described by Hofmann (1997), but since the relationship was not significant, this calculation would not be relevant.

As with my analysis of person-organization fit, I have calculated estimated omega square levels for the organizational personality attributes as they impact individuals' perceptions of person-job fit; these are shown in Table 11.

Variable	k	F	N	ω^2
Size	2	30.921	6912	0.004310
Age	2	1.008	6912	0.000000
Boyscout	2	2230.434	6912	0.243882
Innovativeness	2	175.902	6912	0.024680
Dominance	2	66.711	6912	0.009417
Stylish	2	259.417	6912	0.036039
DTR	2	552.870	6912	0.073939

Table 11 – Omega Square (Ω^2) for Person-Job Fit Variables

Compared to person-organization fit assessment, defined tasks and roles are more salient in assessing person-job fit, however, as with the POF analysis, the most important organizational attributes for individuals in their assessment of person-job fit is that an organization is considered to be Boyscout ($\omega^2 = 0.24$), followed by the presence of defined tasks and roles ($\omega^2 = 0.07$) and that it is considered Stylish ($\omega^2 = 0.04$).

CHAPTER 4. DISCUSSION AND CONCLUSIONS

The research I conducted in this dissertation develops and tests a model of organization personality in a recruitment context, specifically as it relates to the organization personality trait impressions as signaled by organizational size and age. Previous research had informed that signals are sent by organizations in the recruitment process, and two research questions framed the present research: *what are these signals?* and *what might their impact on the recruitment process be?*

I set out to examine these research questions and developed two overarching propositions and a set of hypotheses to test key relationships to gain insight into potential answers to these research questions. The first proposition was that “*Key organizational attributes will be perceived differentially based solely on the explicitly defined attributes of age and size.*” The “a” hypotheses were developed with this proposition in mind and I found that for the key organizational attributes in question in this study, organization personality, they were indeed perceived differently based solely on the explicitly defined attributes of age and size. Specifically, small and new organizations were perceived to be higher than large and established organizations in the organization personality attributes of Boy Scout, Innovativeness, and Style. Conversely, large and established organizations were perceived to be more Dominant and have more Defined Tasks and Roles than small and new organizations. These results were all consistent with the “a” hypotheses, and the results suggest that job seekers do make differential personality trait inferences based solely on organizational age and size.

While the “a” hypotheses presented may seem relatively intuitive, it is important to understand the differences in organizational trait inferences based on size and age as these differences can profoundly impact the recruitment process (Slaughter et al. 2004; Anderson, Haar, and Gibb 2010). From a practitioner’s perspective, understanding how one’s firm is perceived allows one to manage one’s firm’s image during the recruitment process, possibly by highlighting perceptions that are positive, or working to change incorrect perceptions.

Individuals generally perceive greater fit with organizations perceived to be high in Boy Scout, Innovativeness, Dominance and Style (Slaughter et al. 2004) and extant research indicates that individual personality differences moderate the relationship between organization personality type and perceived fit and organization attraction for job seekers (Slaughter et al. 2004; Slaughter and Greguras 2009); initial evidence supports that Conscientiousness moderates the effect of Boy Scout, Innovativeness, and Thrift, while Extraversion and Agreeableness also moderate the effect of Thrift (Slaughter and Greguras 2009). This line of research is promising, but not rich; replication is the key to scientific advancement (Hubbard, Vetter, and Little 1998; Hunter 2001; Tsang and Kwan 1999). It is with this in mind that in the second part of this study I examined the moderating effects of individual personality and values on perceived fit and investigate the direct effects and the relative salience of organization personality dimensions on perceived fit.

I was able to replicate Slaughter et al.’s (2004) findings that individuals perceived greater fit with organizations high in Boy Scout, Innovativeness, Dominance and Style. Extending this line of research, I examined the relative salience of each

organization personality dimension as well as the extent to which tasks and roles were clearly defined. With respect to perceived fit, both POF and PJF, Boy Scout was the single most salient characteristic accounting for more variance than all other examined characteristics combined. This finding suggests that organizations who are perceived to be Boy Scout may have a significant edge at least in the initial stages of the recruitment process. For instance, organizations demonstrating work/life balance policies and benefits may be considered higher Boy Scout than those not demonstrating such benefits and recent research has suggested that certain work/life benefits have a positive impact in a recruitment context (Thompson and Aspinwall 2009). Combining this finding with the earlier personality trait inferences, small and new organizations are perceived to be attentive to people, personal and friendly to a greater degree than are large and established firms. This suggests that perhaps small size and young age are not necessarily liabilities in a recruitment context.

The extent to which roles and tasks were defined was the second most important attribute in predicting perceived fit for job seekers. This finding is especially relevant for small and new ventures, as small and new ventures tend to have greater role ambiguity and defined tasks associated with jobs (May 1997; Levesque 2001), and are less likely to have defined human resource management processes (Hanks et al. 1993), including job analysis and job description that facilitate task and role definition. That job seekers seem to prefer structured jobs suggests that small and new ventures may benefit from HR outsourcing and the use of professional employer organizations (Klaas 2003; Klaas, McClendon, and Gainey 2000).

Another important contribution I make with this study is extending Slaughter and colleagues' (Slaughter and Greguras 2009; Slaughter et al. 2004) research on organization personality and the interaction effects individual personality dimensions have in the recruitment process. In this research, Materialism moderated the relationship between an organization being considered Dominant and perceived POF, and Openness moderated the relationship between an organization being considered Innovative and perceived POF. Though the other hypothesized interactions were not significant, continuing this line of research has the potential to further inform both academics and practitioners in this area.

Limitations

The method I have chosen in this research has the potential to expose job seekers' perceptions of fit in a new light; however it shares some limitations with most judgment-based management research. Most of the limitations involve challenges to the replicability or external validity of "cost-free" experiments such as the one in this study; there is no emotional "cost" to these attributions of fit and the subsequent job search activities individuals may be predicted to make based on them. However, there is evidence that even in the most artificial situations, conjoint analyses significantly reflect the decision policies actually used by individuals (Brown 1972; Hammond and Adelman 1976). Although it can be argued that this task does not realistically capture the manner in which job seekers consider various information sources to assess perceived fit because the respondents were not actually seeking employment opportunities and the organizations they were rating were created specifically for the experiment, this exercise mimics the approach many first-

time job seekers take in apply for a job. Many job seekers, particularly first time job seekers who lack the skills and experience that would allow them the luxury of selectively choosing among employers, “cast a wide net” during the initial phases of the job search process. During this initial phase, job seekers likely have relatively limited information about the companies they are applying to work for. Detailed information about specific companies is often not gathered until the pool has been narrowed down considerably and job-seekers are examining one or two options (Thornbury 2006).

Another criticism common with much judgment-based research is that respondents do not consider all of the information presented – if respondents find there to be too much information, they may make fit attributions based on some form of categorizing the variables or focusing on certain attributes and ignoring others. By limiting the number of attributes examined to seven at two levels each, I addressed this concern, however in doing so, I also limited my analysis from examining other variables or the impact that including more levels may have on individuals’ perceptions of fit.

Judgment-based research often faces criticism that respondents could attach importance to decision criteria simply because they were included in the experiment. This is a possibility, however, the purpose of this research was to examine the importance of the organizational attributes in the study relative to one another. Therefore, it is quite likely that an organization being considered Boy Scout is not the most important attribute in assessing potential fit that a job seeker would consider. However, determining the single most important attribute of the hundreds that a job

seeker might conceivably consider was not my aim in conducting this study. The purpose of this study was to examine some of the signals sent by an organization based on size and age, and the impact of those signals.

Another limitation of my study was my sample. The fact that the sample was undergraduate students was not in and of itself problematic; since over 90% of the participants were job seekers, this sample was of high fidelity and representative of job seekers, especially those seeking entry-level positions. However, this sample was not representative of all job seekers. Replicating this study using individuals seeking positions requiring more education or work experience, such as management and upper-management positions would be of value.

It is both a limitation and strength of the current study that the organizations presented to respondents were generic and limited in description only to size and age. By limiting the descriptions, the genuineness of the organizations portrayed may be reduced. However, by presenting generic organizations, no effect of any specific company's reputation is able to bias the results. This extends the generalizability of the findings in this paper to organizations that are not well known to potential applicants, which is likely the case for many small and new businesses; an applicant's first impression may be the organization's size and age, and this study shows that this first impression may be strong. Previous research shows that actions once the recruitment process has begun have little impact on job seekers' perceptions of firms (Powell and Goulet 1996; Turban 2001), thus managing perceptions at the outset is integral to recruitment success for firms of all sizes.

Directions for Future Study

In this study, I examined organization personality traits as they are differentially inferred and as they relate to perceived fit in a recruitment context. This research represents a small, but important step toward more in-depth understanding of the impact organizational personality trait inferences can have in the recruitment process.

The benefit of using conjoint methodology is that the fit perceptions can be decomposed based on respondents considering all attributes simultaneously. Future research examining other relevant organizational attributes in a recruitment context would benefit from the use of conjoint methodology, taking advantage of being able to examine several attributes as opposed to two or three as in many policy-capturing studies performed in recruitment and HRM research (e.g., Kristof-Brown, Jansen, and Colbert 2002). The use of conjoint methodology to examine several attributes meets the call for multi-attribute utility research in HRM (Roth and Bobko 1997) allowing researchers to examine more attributes at the same time.

As discussed in the limitations section, replicating this study using job seekers at different career levels would be instructive, as would a replication in other national cultural contexts. The results of this study cannot be assumed to apply to a non-US sample, and as such conducting a similar study using an international sample would be informative and valuable.

Conclusions

The research I conducted makes a significant and important contribution to the literature and is also informative for practitioners. With this research, I have begun to

provide insight as to what about an organization differentially appeals to job seekers and have expanded organization personality research into a new context.

In conducting this research, I have heeded the repeated calls for integration of HRM and entrepreneurship research (e.g., Hornsby and Kuratko 1990; Baron 2003; Mayson and Barrett 2006; Tansky and Heneman 2003; Heneman, Tansky, and Camp 2000) as well as integration of recruitment and consumer behavior research (e.g., Hanigan 1994; Breaugh 1992). Clearly, more research remains to be done, however I feel confident that the contributions made through this research are a valuable step in the right direction.

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APPENDIX A

Semantic differential scale

*Scale design*⁷

You will be presented with a list of word pairs that could describe organizations. Please read each word pair and then give your reaction about which of the two words best describe your usual feelings, thoughts, or reactions to the organization in question. Don't worry if you can't exactly describe this organization. The objective of this survey is to indicate your general feelings about these organizations based only on the information provided and any inferences you might make based on that information. Again, there is no "right" answer. Just indicate whatever comes to mind first. For each word pair, select the space that best describes your reaction.

Organization A was founded in 1966 and has over 2,000 employees

For the following word pairs, please check the space you feel best describes your reaction to Organization A

Organization A is:

Friendly	<input type="checkbox"/>	Cold						
Attentive towards people	<input type="checkbox"/>	Neglectful towards people						
Pleasant	<input type="checkbox"/>	Disagreeable						
Interesting	<input type="checkbox"/>	Dull						
Exciting	<input type="checkbox"/>	Boring						
Unique	<input type="checkbox"/>	Common						
Successful	<input type="checkbox"/>	Losing						
Popular	<input type="checkbox"/>	Unpopular						
Dominant	<input type="checkbox"/>	Inferior						
Low-Budget	<input type="checkbox"/>	Extravagant						
Low-Class	<input type="checkbox"/>	High-Class						
Simple	<input type="checkbox"/>	Complex						
Stylish	<input type="checkbox"/>	Out-Moded						
Fashionable	<input type="checkbox"/>	Unfashionable						
Hip	<input type="checkbox"/>	Uncontemporary						

⁷ There are two semantic differential scales to be used – the second will be presented identically, however the organization to be described will be described as, “*Organization B was founded last year and has fewer than 50 employees.*”

Online version of Semantic Differential Scale

The online version of the semantic differential scale is shown on the following page and involves users selecting a value between 1 and 7 from a drop-down menu where one value above is labeled 1, and the other is labeled 7. Words were randomly chosen to appear at either value anchor (1 or 7) in order to minimize bias as described in the Methods section

EXAMPLE:

If you strongly feel that one word best describes your feelings, select the option closest to that word. In the example below, the individual selected option "3." indicating that the word "high-tech" was slightly more appropriate to describe Organization X than was "low-tech".

Organization X is... [1] [2] [3] [4] [5] [6] [7. Low-Tech]

Organization X is... [1] [2] [3] [4] [5] [6] [7. Low-Tech]

The online-administered version of the semantic differential appears as shown below, with the following direction at the top of each page:

YOU WILL BE PRESENTED WITH SEVERAL DROP-DOWN LISTS OF WORD-PAIRS THAT COULD DESCRIBE ORGANIZATIONS. PLEASE READ EACH WORD PAIR AND THEN GIVE YOUR REACTION ABOUT WHICH OF THE TWO WORDS BEST DESCRIBE YOUR USUAL FEELINGS, THOUGHTS, OR REACTIONS TO THE ORGANIZATION IN QUESTION.

For each drop-down list, select the number that best describes your reaction.

Organization A was founded in 1966 and has over 2,000 employees.

Organization A is... [1] [2] [3] [4] [5] [6] [7. Cold]

Organization A is... [1] [2] [3] [4] [5] [6] [7. Cold]

Organization A is... [1] [2] [3] [4] [5] [6] [7. Cold]

Organization A is... [1] [2] [3] [4] [5] [6] [7. Cold]

APPENDIX B

Author-Created Measures

Exposure to New Ventures

	Yes	No	Not Sure
I have worked for or currently am employed by an organization with fewer than 50 employees			
I have worked for or currently am employed by an organization that was founded less than 2 years before I joined that organization			
I have taken a class in entrepreneurship or small business management			

Exposure to Large, Established Ventures

	Yes	No	Not Sure
I have worked for or currently am employed by an organization with more than 1000 employees			
I have worked for or currently am employed by an organization that was founded more than 10 years before I joined that organization			

Defined Tasks and Roles

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
This organization has clearly defined roles for its employees					
If I were to work in this organization, my tasks would be clearly specified					
If I were to work in this organization, my role would be differentiated from the roles of my coworkers					

APPENDIX C

Conjoint Analysis Attributes

The conjoint analysis cases are developed using the attribute/definition pairing shown below. An example case is given.

Attribute	Level	Value	Definition
Size	Small	0	Has fewer than 50 employees
	Large	1	Has more than 1,000 employees
Age	Young	0	Was founded last year
	Old	1	Was founded over 40 years ago
Boyscout	High	0	Has a reputation for treating their employees like family
	Low	1	Has a reputation as an impersonal place to work
Innovative	High	0	Is considered a leader in their market when it comes to bringing forth new ideas
	Low	1	Sticks to what they know best, aren't known for bringing new ideas to the fore
Dominance	High	0	Is a leader in sales and market share in their industry
	Low	1	Is neither at the top of their industry in terms of sales or market share
Style	High	0	Has the reputation as the "in" company
	Low	1	Is not considered "in touch" with the current trends
Defined Roles/Tasks	High	0	The roles and responsibilities of workers are very clear and distinguished from those of other workers
	Low	1	Employees at this company can't easily differentiate their tasks and responsibilities from those of their coworkers and there is ambiguity about which tasks fall to which worker

Organization C (*first row from Master Plan 5, below*):

- Has fewer than 50 employees
- Was founded last year
- Has a reputation for treating their employees like family
- Is considered a leader in their market when it comes to bringing forth new ideas
- Is a leader in sales and market share in their industry
- Has the reputation as the "in" company
- The roles and responsibilities of workers are very clear and distinguished from those of other workers

Design Index from Hahn and Shapiro (1966; plan 6b)

Total Number of Variables	Number of Variables at				Number of Tests Required	Are all main effects independent of 2-factor interactions?	Number of Independent 2-factor Interactions Under Assumed Model	Residual Degrees of Freedom	Master Plan #	Using Columns Number
	2 Levels	3 Levels	4 Levels	5 Levels						
7	7	0	0	0	16	Yes	6	2	5	11, 12, 14, 15, 20, 24, 25

Master Plan 5 from Hahn and Shapiro (1966)

Profiles	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
											Size	Age		BS	IN					DOM				STY	DTR	
C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	0	1	1	2	3	0	1	1	2	1	0	0	0	0	1	1	0	1	1	1	0	1	1	1	1	0
E	0	2	2	3	1	0	2	2	1	1	0	0	0	1	0	1	1	0	1	1	1	0	0	1	1	1
F	0	3	3	1	2	0	1	1	1	2	0	0	0	1	1	0	1	1	0	0	1	1	1	1	0	1
G	1	0	1	1	1	1	0	1	1	1	0	1	1	0	0	0	0	1	1	0	1	1	0	1	1	1
H	1	1	0	3	2	1	1	0	1	2	0	1	1	0	1	1	0	0	0	1	1	0	1	0	1	1
I	1	2	3	2	0	1	2	1	2	0	0	1	1	1	0	1	1	1	0	1	0	1	0	0	0	0
J	1	3	2	0	3	1	1	2	0	1	0	1	1	1	1	0	1	0	1	0	0	0	1	1	1	0
K	2	0	2	2	2	2	0	2	2	2	1	0	1	0	0	0	1	0	1	1	0	1	1	0	1	1
L	2	1	3	0	1	2	1	1	0	1	1	0	1	0	1	1	1	1	0	0	0	0	0	1	1	1
M	2	2	0	1	3	2	2	0	1	1	1	0	1	1	0	1	0	0	0	0	1	1	1	1	1	0
N	2	3	1	3	0	2	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	0	0	0	0
O	3	0	3	3	3	1	0	1	1	1	1	1	0	0	0	0	1	1	0	1	1	0	1	1	0	0
P	3	1	2	1	0	1	1	2	1	0	1	1	0	0	1	1	1	0	1	0	1	1	0	0	0	0
Q	3	2	1	0	2	1	2	1	0	2	1	1	0	1	0	1	0	1	1	0	0	0	1	0	0	1
R	3	3	0	2	1	1	1	0	2	1	1	1	0	1	1	0	0	0	0	1	0	1	0	1	1	1

The first column (Profiles) has been added to correspond to the profiles used in this study. The highlighted columns correspond with those directed from Plan 6b (above)