

1042-2587 © 2011 Baylor University

Exploring Entrepreneurial Cognition in Franchisees: A Knowledge-Structure Approach

Kristie W. Seawright* Isaac H. Smith Ronald K. Mitchell Richard McClendon

Franchisees participate in new business creation uniquely, because, in many respects, the development of their ventures is under the direction of franchisors. In this study, using entrepreneurial scripts, we compare the extent to which franchisee venturing is similar to and/or distinct from individual-based entrepreneurship in nonfranchise new ventures. We therefore examined the entrepreneurial scripts of individuals in a purposeful sample of 54 franchisees compared to two counterpart groups: 54 independent entrepreneurs and 94 managers (neither franchisee nor entrepreneur). Using MANCOVA and follow-up tests we find that franchisees are less like entrepreneurs and more similar to nonentrepreneur managers.

Introduction

Franchisees are important in entrepreneurship (Grunhagen & Mettelstaedt, 2005) because, as individuals, they have a role in the creation of new ventures (Low & Mac-Millan, 1988). However, the extent to which this involvement is similar to and/or distinct from other individual-based sources of entrepreneurship (e.g., nonfranchise new ventures) is unclear. This is because franchisees participate in new business creation in a unique manner, since the development of their ventures is partly under the direction of others—namely franchisors. As the intersection of franchising and entrepreneurship literatures

Please send correspondence to: Kristie W. Seawright, tel.: (801) 422-3967; e-mail: kseawright@byu.edu, to Isaac H. Smith at isaac.smith@utah.edu, to Ronald K. Mitchell at ronald.mitchell@ttu.edu, and to Richard McClendon at richard_mcclendon@byu.edu.

^{*} Author to whom correspondence should be directed.

An earlier version of this manuscript was presented at USASBE in January, 2008.

continues to develop, additional exploration is therefore required to better understand the extent to which franchisees differ from other entrepreneurs—the results of which would have implications for the inclusion of franchisees in study designs and theory-building in entrepreneurship research.

Based upon the premise that decisions by individuals to engage in entrepreneurial activity are not randomly determined, and that it is therefore important to identify individual factors that can be systematically associated with entrepreneurship (cf. Shane, 2003, p. 61, 94), researchers have explored several lenses through which to distinguish between and among individuals as sources of entrepreneurship. These factors include age and education (Evans & Leighton, 1986), gender (Hisrich & Brush, 1986), immigration (Bonachich, 1973), locus of control (Berlew, 1975), need for achievement (McClelland, 1961, 1965), risk-taking propensity (Hull, Bosley, & Udell, 1982), etc. Age and education explanations have been consistently supported, and hence, are used as standard control variables in most studies. As research has continued, a more nuanced story has emerged with respect to other variables. For example, Shane (2003) summarizes research explaining how both demographic and psychological factors are important in explaining who exploits entrepreneurial opportunities. Part of this more fine-grained analysis has been contributed by entrepreneurial cognition research, which has suggested additional explanations for individuals' roles in entrepreneurship (Mitchell, Busenitz, et al., 2002; Mitchell et al., 2007). Specifically, Expert Information Processing Theory (EIPT) explanations within this research stream have been particularly useful in helping entrepreneurship researchers make distinctions between experts (entrepreneurs) and novices (e.g., managers) in a variety of countries (Mitchell, Smith, Seawright, & Morse, 2000) and among various types of experts (Mitchell, Smith, et al., 2002).

While "expert" entrepreneurs are by no means expected to think perfectly about venturing, and while "novice" entrepreneurs are assumed to have some venturing-focused thought processes, the EIPT literature suggests that the scripts (action-based knowledge structures, e.g., Mitchell et al., 2000) of experts and novices will differ on important dimensions. For example, novices tend to concentrate on the surface features of a domain-specific task environment, whereas experts are not so distracted. Instead, they access a deeper knowledge base and specific problem-solving processes (Charness, Krampe & Mayer, 1996; Glaser, 1984). And thus, while there is no one entrepreneurial expert script, there is reason to suppose that entrepreneurs have a unique and distinct knowledge base and set of problem-solving processes that would suggest that there are cognitions inherent to a more-general entrepreneurial script (Mitchell et al., 2000; Mitchell, Smith, et al., 2002). We therefore apply an EIPT-based approach to enable the comparison of entrepreneurial scripts among the groups of individuals implicated by our research question: To what extent do entrepreneurial scripts differ among entrepreneurs, managers, and franchisees?

The intended contribution of this research is to help entrepreneurship scholars to increase understanding of the individual-level franchisee/entrepreneur intersection where, on the one hand, empirical research suggests "that purchase of a franchise is unlikely to reduce the risks facing a new business start-up" (e.g., Bates, 1998, p. 114); and on the other hand popular press articles continue to assert that "a franchise business lowers the risk because someone else has already pioneered the concept, tested the ideas, made the inevitable mistakes and found out what works and what doesn't" (Sloan, 2010, p. 1). We therefore intend for our results to address such questions as: do franchisee entrepreneurial scripts more closely resemble those of entrepreneurs, or are they more akin to those of less-entrepreneurial manager/novices? While this contribution is explicitly descriptive in nature, we emphasize that because it is essential that advances in theory be founded upon a sound descriptive base (Nunnally, 1978), we view the analysis produced

by this research to be a necessary building block in the further development of research at the intersection of franchise and entrepreneurship theory.

Franchisees as Entrepreneurs

Presently in the research literature there is no clear-cut distinction between franchiseeentrepreneurs and nonfranchisee-entrepreneurs. However, some research has focused in this direction (e.g., Bates, 1995, 1998), but does not necessarily address differences stemming from underlying cognitive scripts. Beginning in the late twentieth century, various articles in the literature started to delineate some directions for making these comparisons—but as this literature now stands, the needed baseline has not yet been fully demarcated. For example, as chronicled in Table 1, franchisees are often considered to be entrepreneurs in that they are sources of funds with an entrepreneurial profile (Oxenfeldt & Kelly, 1969), people with an "entrepreneurial-type personality" (Falbe, Dandridge, & Kumar, 1999; Grunhagen & Mettelstaedt, 2005; Jambulingam & Nevin, 1999; Withane, 1991), opportunity sentinels (Baucus, Baucus, & Human, 1996), and franchise-system innovators/local pioneers (Clarkin & Rosa, 2005; Stanworth & Curran, 1999). However, franchisees have also been shown to differ from traditional entrepreneurs, in that they may be less skilled (Williams, 1999) or less familiar with their businesses (Kaufmann, 1999) than nonfranchisee entrepreneurs. Based upon presently available research, then, only a blurred distinction can be made between franchisee-entrepreneurs and other entrepreneurs.

In an effort to reduce the ambiguity in distinguishing among franchisees, other entrepreneurs, and managers, we therefore examine differences in thinking/ entrepreneurial cognitions, and apply EIPT, which has previously been used to distinguish between entrepreneur and nonentrepreneur thought processes (e.g., Corbett & Hmieleski, 2007; Dew, Read, Sarasvathy, & Wiltbank, 2009; Gustavsson, 2004; Mitchell et al., 2000; Mitchell, Snow, et al., 2002; Sarasvathy, 2008; Sarasvathy, Simon, & Lave, 1998, etc.). Entrepreneurs, as a type of expert in their domain, are thought to develop unique action-based knowledge structures (entrepreneurial scripts) and to process, transform, store, recover, and use information (e.g., Neisser, 1967) differently than nonentrepreneurs (Mitchell et al., 2000). Thus, the information processing theory branch of the entrepreneurial cognition research stream provides a likely means for researchers to investigate the extent to which entrepreneurial expert scripts differ among entrepreneurs, managers, and franchisees to address the research question. We thus apply an EIPT-based approach in an attempt to assess the extent to which franchisee thinking/scripts are entrepreneurial.

EIPT

Why do individuals perform differentially depending upon the nature of the task domain? Ericsson (1996, p. vii) explains that the systematic, theoretical, and empirical work developed to answer this question has been underway since the seminal work on chess expertise by de Groot (1946/1978), which was rekindled in an interdisciplinary format by Chase and Simon (1973). Consistent with requirements for theory-building (e.g., Bacharach, 1989), which call for theory to comprise a statement of relations among concepts (variables or constructs) within a set of boundary limitations (pp. 496–498), a general theory for the structure of expertise was proposed by Chase and Simon

Table	1
-------	---

Author(s) Year		Journal	Franchisees as entrepreneurs			
Oxenfeldt and Kelly	1969	Journal of Retailing	"Franchisors may be short of funds and hence driven to rely on the use of franchisees." (p. 71)"At first [the franchisee's] major strengths may be his ambition, willingness to work hard, local knowledge and finances." (p. 75)			
Withane	1991	Journal of Small Business Management	Surveyed franchisees "rated themselves as being high in taking initiative, self-reliance, competitiveness, and having a high need for achievement." (p. 27)			
Baucus, Baucus, and Human	1996	Journal of Business Venturing	"Over time, franchisees gain local knowledge about their markets, exercise entrepreneurial initiative, and adopt their own standards for quality and conduct." (p. 359)			
Falbe, Dandridge, and Kumar	1999	Journal of Business Venturing	Franchisors encourage entrepreneurial activity in their franchisees: "firms use franchise councils and programs of recognition to support entrepreneurial behavior." (p. 135)			
Jambulingam and Nevin	1999	Journal of Business Venturing	Those franchisees who have "perceived innovativeness" and "personal commitment to the business" are more likely to achieve desired outcomes of franchisors. (p. 387)			
Stanworth and Curran	1999	Journal of Business Venturing	"Franchisees can make a substantial contribution to franchise system innovation in ways ranging from developing new products or services to pioneering ways of adapting to local conditions." (p. 338; theoretical article only)			
Clarkin and Rosa	2005	International Small Business Journal	"Arguably, the most successful franchises are those that permit both entrepreneurial franchisors and franchisees to come up with new ideas and work as a team to gain competitive advantage for all parties involved." (p. 324)			
Grunhagen and Mettelstaedt	2005	Journal of Small Business Management	"Sequential multi-unit franchisees and area developers differ significantly when it comes to entrepreneurial motivation, with sequential operators indicating a higher degree of entrepreneurial drive than area developers." (p. 219)			
Author(s)	Year	Journal	Franchisees not as entrepreneurs			
Williams	1999	Journal of Business Venturing	"The self-selection process that generates the pool of franchisees is such that franchisees are from the lower tail of the skill distribution of entrepreneurs In short, franchisees possess fewer or lower quality skills than			
Kaufmann	1999	Journal of Business Venturing	 independent business owners." (p. 121) "Franchisees were more likely to purchase a franchise outside of their area of expertise than within, i.e., 70% did so." (p. 359) 			

Franchisees as Entrepreneurs: Supporting and Refuting Evidence

Arranged chronologically.

based upon differential information processing concerning "any skilled task." This general theoretical framework is now referred to in multiple streams of literature as EIPT (Lord & Maher, 1990).

According to Lord and Maher, "the key assumption underlying EIPT-based models is that people rely on already-developed knowledge structures to simplify the processing of information. However, these knowledge structures pertain only to a specific content domain" (1990, p. 13). The boundary-setting domain-specificity of knowledge structures is highly useful when trying to distinguish between two groups of individuals based upon their knowledge structures, for example, entrepreneurs from franchisees. It is also useful to note that the EIPT literature uses the term "knowledge structure" somewhat interchangeably with two other terms: a schema (a mental codification of experience that includes a particular organized way of cognitively perceiving and responding to a complex situation or set of stimuli) and an expert "script." As previously noted, within the entrepreneurship literature, entrepreneurial expert scripts have been defined to be "action-based knowledge structures" (Mitchell et al., 2000, p. 975).

Evidence suggests that expert scripts in individuals are developed through in-depth experience within a particular domain (Lord & Maher, 1990; Walsh, 1995). In a variety of fields such as chess (Chase & Simon, 1973), computer programming (McKeithen, Reitman, Reuter, & Hirtle, 1981), law enforcement (Lurigio & Carroll, 1985), and physics (Chi, Glaser, & Rees, 1982) empirical work has shown a consistency across specific domains as to how expert information is acquired, stored, and retrieved (Neisser, 1967) from the memory of individuals. This consistency is explained by the idea that experts develop knowledge structures/schemas/scripts about particular domains, and that these scripts enable them to significantly (e.g., two standard deviations) outperform those who neither have nor use expert scripts in that domain (Ericsson, Krampe, & Tesch-Romer, 1993; Glaser, 1984; Leddo & Abelson, 1986; Lord & Maher; Read, 1987). As structured knowledge, scripts have been found to be used by individuals in a particular order: first, for *entry* into the action sequence within a domain, and second, for the *doing* of the tasks required within this domain (Leddo & Abelson). Leddo and Abelson's study reports the results of a set of experiments where the responses of subjects on several script-based tasks (e.g., planning) were observed. The scripts represented by the tasks were found to consist of information about *both* the situation itself and of the sequentially ordered knowledge required for performance within that situation. Early within the script sequence, individuals were found to emphasize the adequacy of script "entry" arrange*ments* (e.g., does a plumber possess or have access to wrenches and piping?). Later in the script sequence, nested within their concern for arrangements, individuals were found to emphasize "doing" or enacting script requirements, which implies motivation/willingness and the *opportunity-ability* of individuals to carry out the main goal of the script (Leddo & Abelson, p. 121) (e.g., given tools and materials, will the plumber choose to, and be able to fix the leak?). Evidence of these three general cognitive processes (Arrangements, Willingness, and Opportunity-Ability) and their usefulness in distinguishing experts from novices has previously been found in cross-cultural entrepreneurship (Mitchell et al., 2000; Mitchell, Smith, et al., 2002). It is for this reason that we find the possibility of distinguishing entrepreneurs from franchisees using similar theory and methods to be particularly appealing.

Hence, by utilizing EIPT to examine franchisee scripts, and comparing them with those of independent entrepreneurs and managers, we hope to better situate the role of franchisees within the field of entrepreneurial endeavor. Such an approach will add—as has been called for—greater diversity of theoretical perspectives in franchising research (Combs, Michael, & Castrogiovanni, 2004), and within the entrepreneurial cognition literature (Mitchell et al., 2007). Developing a franchisee-cognition-based explanation can both help to clarify the contribution of franchising to entrepreneurship, and continue to lay the groundwork for stronger theories to focus on the franchising phenomenon.

Entrepreneurial Scripts

An entrepreneurial expert script, as previously defined in the literature (Mitchell et al., 2000) is "highly developed, sequentially ordered knowledge" that forms "*an action-based knowledge structure*" used by entrepreneurs (p. 975, emphasis in original). Mitchell et al.

(2007, p. 8) suggest that the reason entrepreneurial scripts provide explanations for certain types of entrepreneurial behavior (e.g., the venture creation decision) is that entrepreneurs' unique knowledge structures help them to process information in ways that enable them to see advantage despite imperfect market conditions, because they use information significantly better than nonexperts/nonentrepreneurs—that is, at ≥ 2 standard deviations above the mean in the population at large (Ericsson et al., 1993; Glaser, 1984; Leddo & Abelson, 1986; Lord & Maher, 1990; Mitchell et al., 2000; Read, 1987). It is now well accepted that entrepreneurial scripts are dynamic knowledge structures that are susceptible to deliberate, practice-based change (Baron & Henry, 2006; Englebrecht, 1995; Mitchell, 2005). Being relatively specific to given domains, scripts also permit researchers to identify latent, underlying structures (Merton, 1975) within each domain. Accordingly, we speculate that script-based comparisons based upon different subdomains (independent entrepreneur, manager, and franchisee) will be useful in answering our research question about such differences in entrepreneurial cognitions. Specifically, we suggest that these differences might become evident by utilizing the previously identified types of entrepreneurial scripts (Arrangements, Willingness, and Opportunity-Ability) as the basis for comparison.

Within the entrepreneurial domain, Arrangements scripts have been defined to include the knowledge structures that individuals possess about funding and financial resources, asset and idea protection, and contacts/networks necessary for new value-creating economic relationships (Rumelt, 1987; Vesper, 1996). Willingness scripts have been defined to be the knowledge structures that underlie the readiness or receptivity to exploring economic possibilities, urgency and risk-taking motivation, and a tolerance for making commitments in new economic relationships (Ghemawat, 1991; Krueger & Brazeal, 1994; Krueger & Dickson, 1993; McClelland, 1968). Opportunity-Ability scripts are the knowledge structures that individuals have about new venture scenarios and patterns, new venture situations, the needed orientation toward success, and opportunity-recognition skills required to create a venture (Bird, 1989; Boyd & Vozikis, 1994; Glade, 1967; Kirzner, 1982; Krueger & Carsrud, 1993; Stuart & Abetti, 1990; Vesper, 1980, 1996).

Accordingly, consistent with prior research (e.g., Mitchell et al., 2000), we argue that those who: (1) are able to more appropriately utilize Arrangements scripts about the financial resources, idea protection, and networks necessary to new value-creating economic relationships; (2) have more highly developed willingness scripts relating to the readiness to explore economic possibilities, are motivated by opportunity, and have a tolerance for making commitments in new economic relationships; and (3) rely upon Opportunity-Ability scripts to enact the "doing" of individual plans, such as in diagnosing the condition and potential of ventures, in being able to create value, and in drawing on and applying lessons learned in a variety of ventures (Leddo & Abelson, 1986, p. 121; Mitchell et al.), will have sufficiently dimensionalized scripts that the comparisons required by the research question (i.e., among entrepreneurs, nonentrepreneur managers, and franchisees) might be made. This expectation is consistent with the finding that entrepreneurs, when compared with other individuals, may perceive starting a venture to be differentially risky because what may be perceived as risky to one individual is not to another given the influence of certain entrepreneurial cognitions¹ (Simon, Houghton, & Aquino, 2000). Hence, we expect that independent entrepreneurs will

^{1.} We note that the plural use of the term cognition (cognitions) is becoming increasingly useful in the literature (e.g., Taylor, Lerner, Sherman, Sage, & McDowell, 2003), and accordingly, have adopted this form of usage to more precisely describe our intended meaning.

possess Arrangements, Willingness and/or Opportunity-Ability scripts differentially to those of managers and franchisees, who are likely, due to differences in their situations, to differ in their perceptions of their relevant configuration of social-cognitive forces (Fiske & Taylor, 1984).

Since franchisees are subject to exogenous direction from franchisors, we anticipate that across the range of entrepreneurial roles (low to high: manager—low, franchisee— medium, independent entrepreneur—high), the three groups are likely to have sufficiently different thinking patterns that an analysis of their entrepreneurial scripts will produce useful comparisons. While entrepreneur-manager differences have been well-documented in the literature (e.g., Gustavsson, 2004; Mitchell et al., 2000; Mitchell, Smith, et al., 2002; Sarasvathy et al., 1998), we argue that it is now necessary and helpful to provide a similar rationale for franchisees. In the following section, we briefly sketch what is known about each of the three groups (entrepreneurs, managers, and franchisees), to develop a rationale for the script differences that we test in this study.

Franchisee Scripts

One property of individuals' scripts that is of great interest and usefulness in the study of expertise, is the persistent level of relative sameness of scripts within a context-specific domain (Abbott & Black, 1986) that is absent for individuals who are unfamiliar with that domain (Glaser, 1984). We relied upon this property to hold true for this study as well. Hence, because the domain of each group in the study is context-specific to that group (e.g., entrepreneurs' context will differ somewhat from managers' context, both of which will differ from franchisees' context) we expected that franchisee and manager scripts might also differ from those of entrepreneurs. We had additional theoretical reason to expect such differences in the entrepreneurial case, because this pattern of contextspecificity has been observed previously by Mitchell, Smith, et al. (2002), who found that entrepreneur-experts—while distinct from novices—were also differentiable within the expert group based upon country differences: their scripts being distinct due to culture.

Context-specificity is therefore expected to differ in the case of franchisee scripts because, for whatever variety of reasons, some individuals choose not to start a new business on their own (franchisees), others choose to start the business and create a management system that can be replicated (franchisors), and still others choose to run the businesses created by others (managers). This creates three distinct, context-specific, thinking domains. We suggest that this division of labor is decisive in the formation of franchisee scripts. For example, there is a need for franchisees to draw on existing relationships and develop new ones to raise financial capital and other resources needed to obtain a franchise. Given this fundamental requirement, franchisees and entrepreneurs are likely to have similar Arrangement scripts. On the other hand, franchisees do not need to have a drive to explore, a willingness to take risks, the ability to recognize opportunities, etc. to the same extent that entrepreneurs do, owing to the fact that the franchise agreement is spelled out and the opportunities and risks of the franchise concept are reasonably well understood. Therefore, on the willingness and opportunity-ability dimensions the entrepreneurial scripts of franchisees are likely to differ from those of entrepreneurs; and there is also likely to be little difference between franchisees and managers on these dimensions since the job of the latter does not necessarily require the development of those cognitive capabilities.

So when it comes to the formation of expert scripts as we have defined them, we think that it is logical to expect that differences in business-involvement choice will lead to differences in knowledge structures (scripts). In our literature review, we have found distinct patterns of action by individuals within each of the three groups in a variety of areas where differences in these actions could lead to differences in knowledge structures.² These include actions concerning, for example, resources, idea protection, network building, motivation, commitment, skill application, and interaction with the environment.

Thus, we note in the literature that as it concerns, for example, the resource component of arrangements scripts, entrepreneurs more often go to their limit in seeking the input of resources (Baker & Nelson, 2005), while managers are concerned with resources not their own (Bhide, 2000), and franchisees focus on gaining managerial resources from the franchisor (Williams, 1999) in exchange for their output of resources to fund the franchise (which is usually less than their full net worth) (e.g., Grunhagen & Mettelstaedt, 2005). Entrepreneurs more often protect their new ideas through first mover advantages or other isolating mechanisms (Rumelt, 1987), managers only have company ideas to protect as agents—which they may or may not do (Jensen & Meckling, 1976), and franchisees have access to ideas through contractual obligation, or a franchisor-built brand name (e.g., Grunhagen & Mettelstaedt; Shane & Spell, 1998). Entrepreneurs are social network builders external to themselves (Sundbo, Johnston, Mattsson, & Millett, 2001), managers are internal network builders focused within the firm (Moran, 2005), while franchisees' networks primarily focus on interactions within the franchise chain (Sorenson & Sorenson, 2001).

Where motivation and commitment are concerned as they might affect willingness scripts, similar activity-based differences have been observed. Entrepreneurs are thought to be more motivated by advancement, growth, accomplishment, and emotional fulfillment (Corbett & Hmieleski, 2007; Grunhagen & Mettelstaedt, 2005); managers by competence, efficiency, and need for power (Stewart, Watson, Carland, & Carland, 1998); and franchisees by independence (being my own boss) and security (Grunhagen & Mettelstaedt). Differences in commitment-based action that can lead to differences in willingness scripts may also be observed in entrepreneurs' differential perceptions—where they treat situations as less risky (De Carolis, Litzky, & Eddleston, 2009)—and therefore commit based upon these bias or heuristic-based perceptions (Busenitz & Barney, 1997). Managers' priority actions center on business continuation (Laux, 2001), and franchisees' commitments are contractual and contingent (e.g., will not sink every dollar into the venture) (Grunhagen & Mettelstaedt).

And when it comes to ability scripts, the literature also chronicles differences. For example, the skills of entrepreneurs center on the opening of new markets and on actions that drive innovation (Bryant, 2006), the skills of managers on such key tasks as monitoring (Laux, 2001), and those of franchisees more on the basics of business, having been documented to have fewer or lower quality skills than, for example, entrepreneurs (Williams, 1999). Concerning interaction with the environment—as another example of ability-type differences—entrepreneurs are thought to practice an exceptionally comprehensive set of skills, including: "... opportunity recognition and screening, business planning, creative problem solving, strategic marketing, financial management, human resource management, and leadership and persuasive skills" (Douglas & Shepherd, 1999, p. 235). Managers have a different set of schema-based actions rooted in their organizational role versus in the environment (Corbett & Hmieleski, 2007). Franchisees, again

^{2.} This is not to suggest that there are not similarities as well. For example, it might be expected that members of all three groups might desire to avoid failure (e.g., McGrath, 1999), focus on profits or "rent seeking" (e.g., Rumelt, 1987), and/ or utilize strategic thinking (e.g., Vesper, 1996). But notwithstanding similarities, there is still reason to expect differences in the scripts of individuals that can be attributed to their group membership.

different, are thought to focus more upon the application of local knowledge to benefit the franchise system (Falbe et al., 1999).

Accordingly, as we examined franchisee entrepreneurial scripts, we investigated two empirical questions: (1) Are there differences in Arrangements, Willingness, and Opportunity-Ability scripts among entrepreneurs, managers, and franchisees, and if so (2) what are those differences? To address these questions we tested the following hypothesis:

Hypothesis: There are differences among the mean vectors among entrepreneur, manager, and franchisee groups on three constructs of entrepreneurial expertise: Arrangements, Willingness, and Opportunity-Ability.

Methodology

The methodology used to conduct this study is a direct application of an instrument previously used by Mitchell et al. (2000). It is reported in the following three sections: (1) data collection (2) measurement, and (3) data analysis.

Data Collection

In order to test for the differences among the groups of interest as stated in the hypothesis, data were collected from entrepreneurs, managers, and franchisees. To ensure the clarity of group boundaries and thus the differentiability sought in this study, the operational definition of each group followed the relatively narrow "start-a-new venture" definition of entrepreneurship suggested by Low and MacMillan (1988) as introduced at the outset of this article. Study participants classified as entrepreneurs had started at least three businesses, one of which ran successfully for at least a year; or they were currently running a successful business they had started, which had been in operation for over 2 years. Managers had not started an entrepreneurial venture or a franchise but had at least two years of business management experience and/or training. Respondents were qualified as franchisees if they had successfully run a franchise for over 2 years and had new venture (nonfranchise) experience of less than 2 years. Over 80% of the franchisees had less than 1 year of nonfranchise entrepreneurial experience.

Because of the difficulty in accessing sampling frames for probability samples in social science research (Pedhazur & Schmelkin, 1991), we used a purposeful sampling approach. The research team worked in conjunction with local business leaders to identify qualified potential entrepreneur and manager respondents. Appropriate entrepreneurial respondents were identified through chambers of commerce and small business development centers. Managerial respondents were contacted through interaction with chambers of commerce and local business schools. This approach relied upon the combined judgment of researchers and local assistants as survey respondents of various service businesses, education levels, ages, and backgrounds in business experience were selected. Once potential entrepreneur and manager respondents were identified, they were approached in person by a research assistant with the request to complete a pre-tested, structured, paper-and-pencil survey instrument. The personal contact with potential participants allowed for group membership qualification prior to the request for survey completion. It also encouraged participation, resulting in a response rate of 90%.

Potential franchisee respondents were identified through a purchased e-mail address list of franchise owners residing and working throughout the United States. Selected franchisees each had a business location separate from their residence. They were contacted via e-mail and requested to respond to an online survey. This survey instrument was exactly the same in content as the paper survey completed by the entrepreneurs and managers. The online survey generated a response rate of 21%; but only 29% of the respondents were qualified as franchisees with a minimum of 2 years of franchise experience and less than 2 years of nonfranchise, new venture experience.

Accordingly, data (n = 202) were collected from three U.S. populations: (1) entrepreneurs (n = 54), (2) managers (n = 94), and (3) franchisees (n = 59, of which five were deleted due to missing values). The respondents in this study were therefore entrepreneurs and franchisees in the private sector, and managers in both private and public sectors, with some managers being business students with business experience or training. This sample included only respondents involved in services broadly defined: the franchisees own franchises in industries as varied as education, security, hotel, business services, beauty, and real estate. Some examples of the owned franchises are Sylvan, Fantastic Sams, Action International, and Sonitrol.

Because age and education have been shown to be potential alternative explanations for differences between entrepreneurs and managers, we examined these demographics. We found that there are differences among the studied groups on these demographics (p < .000 on both variables). We thus controlled for their effects in our analysis.

Measurement

Script Cue Methodology. It has now been well established in the literature that the information-processing scripts of entrepreneurs are distinct (Mitchell et al., 2000; Mitchell, Busenitz, et al., 2002; Mitchell, Mitchell, & Mitchell, 2009). Their content at a given point in time (Walsh, 1995) can be measured by language-based methodologies such as script-cue recognition (Mitchell et al.) and protocol analysis (Sarasvathy, 2008), and through physiological means (Ericsson, 2002). These approaches are needed because assessing levels of cognitive activity involves measuring phenomena that are not directly observable (Posner, 1973, pp. 92–93). The latter branch relies upon physiological observations (e.g., eye movements, responses to color stimuli, PET scans, etc.) and the former upon symbolic observation (e.g., protocol analysis, script cue recognition, etc.). Script cue recognition therefore uses respondents' symbolic feedback systems to provide evidence of various types of cognitive activity. As explained by Mitchell et al. (2000, p. 982), script cue recognition accomplishes this measurement task as follows:

One accepted approach, based on expert information processing theory, is to use a script-scenario construction model (Glaser, 1984; Read, 1987). In this approach, the existence and degree of mastery of scripts is inferred based on respondent selection of paired response choices, one that represents expertise or script mastery, and one that does not. Experts, when presented with problems within their domain of expertise, are expected to access their knowledge structures/scripts to select the response choice (cue) consistent with that script (Glaser, 1984, p. 99). Non-experts, being unable to access an appropriate script, are more likely to choose a socially desirable (Crowne & Marlowe, 1964) distracter cue. The cues are not the scripts, but when selected, simply provide evidence regarding the likely existence and mastery of a script.

The full details of the development and utilization of the script-cue-recognition measurement method in entrepreneurship research are reported in Mitchell et al. (2009). This report provides a detailed explanation for how to apply to entrepreneurship research,

the script-scenario construction model specified by Glaser (1984) and Read (1987) where the structure criteria for script-cue construction (e.g., compliance with: sequence and norms, knowledge categories, structure guidelines, and structure definition), and the content criteria (e.g., compliance with the six steps of content identification) are combined to produce five decision rules for script-cue construction (Mitchell et al., pp. 115–119). An extensive analysis of entrepreneurship-related script cue development and use in the classification of experts and novices is also reported.

Mastery of the Arrangements, Willingness, and Opportunity-Ability scripts cannot be measured directly since scripts are internal mental operations and are (as just noted), not directly observable (Posner, 1973, pp. 92–93). Use of a script-scenario model is an accepted, indirect measurement procedure where mastery is inferred from respondent selection among response choices (Glaser, 1984; Read, 1987). The scenario cues are not the scripts; but the selection of the cue by a respondent provides evidence indicating the likely existence of the script. Hence, a paired script cue method (mastery cue—distracter cue) was used to measure Arrangements, Willingness, and Opportunity-Ability.

The script-cue recognition methodology depends for its utility upon the generally accepted finding that nonexperts are unable to infer further knowledge from the literal cues in expertise-specific problem statements. This inability is thought to occur because "the knowledge of novices is organized around the literal objects explicitly given in a problem statement" (Glaser, 1984, p. 98). Thus, a nonexpert with a plumbing problem, when confronted with a leaking pipe, would be restricted to knowledge that related to the literal objects: wet floor, spraying water, etc. An expert plumber would deal with the abstractions inherent (subsumed) within the problem: water pressure, type of pipe, likely causes for the leak, repair strategies, and other abstractions on the problem that are beyond the literal objects at hand. Hence, experts' knowledge is organized around principles and abstractions that: (1) are not apparent in problem statements, (2) subsume the literal objects, and (3) derive instead from a knowledge about the application of particular subject matter, leading experts to generate relevant inferences within the context of the knowledge structure or script that they have acquired (Glaser). Thus, expert knowledge is "schematized," that is, organized in chunks or packages so that, given the appropriate situational context, an individual has many likely inferences available on what might happen next in a given situation (Abelson & Black, 1986). The script-cue-recognition approach therefore suggests that if little bits of situational context (representations from expert scripts) were to be provided to individuals as cues, their ability to recognize the information as applicable to them individually, should confirm the elements of an expert script, while also revealing individuals' expertise.

Using an acceptable script-cue construction methodology (e.g., Mitchell et al., 2009; Read, 1987), a questionnaire was produced to cue individuals, whose responses indicate recognitions. Appropriate script and distracter cues were developed using the empirical entrepreneurship literature, the expert theory literature, and panels of entrepreneurial experts. The cues were tested for face and external validity through interviews with entrepreneurs, business nonentrepreneurs, and franchisees. The items and the wording of cues were refined on the basis of these interviews and some additional pretests.

Each item in the questionnaire consists of a two-alternative multiple-choice question. One alternative is the script cue, and the other is a distracter statement—a plausible, even appealing alternative to those who are unfamiliar with the domain (new venture formation). Distracter statements that appeal to individuals' notions of social desirability (Crowne & Marlowe, 1964) or that conform to commonly accepted entrepreneurial myths, add additional distinguishing precision to script-cue recognitions as an empirical reference point, since the likelihood that novices will select a script cue is markedly diminished

by the availability of an appealing but wrong choice that only an expert could avoid (see Appendix).

Development of Measures for Arrangements, Willingness, and Opportunity-Ability. In order to evaluate differences among the studied groups, three formative factors resembling indices (Diamantopoulos & Winklhofer, 2001), were developed—one each to measure Arrangements, Willingness, and Opportunity-Ability. Development of each construct was independent of development of the other two.

Script-cue questions were written to elicit responses that would indicate the existence (or absence) of expertise in areas that have been established as components of Arrangements, Willingness, and Opportunity-Ability. The responses that were expected to illuminate cognitive scripts in the constructs that form the Arrangements factor were scored as "1" when the expert script was recognized, and "0" when the distracter statement was selected. Each respondent's score for the Arrangements factor was calculated by summing the scores (1 or 0) for the responses to script-cue questions that underlie this construct (Nunnally, 1978, p. 16). The same analyses were conducted with regard to the constructs of Willingness and Opportunity-Ability.

As a comparative and contextualizing aside, it is important to note that researchers have made a clear distinction between formative indicators and reflective indicators. Chin (1998, p. ix) explains that unlike reflective indicators,

... formative indicators ... are measures that form or cause the creation or change in a LV [latent variable]. An example is socio-economic status (SES), where indicators such as education, income, and occupational prestige are items that cause or form the latent variable SES. If an individual loses his or her job, the SES would be negatively affected. But to say that a negative change has occurred in an individual's SES does not imply that there was a job loss. Furthermore, a change in an indicator (say income) does not necessarily imply a similar directional change for the other indicators (say education or occupational prestige).

Additionally, formative indicators are independent components of a construct and they may not be highly correlated. Therefore, it is inappropriate to expect unidimensionality at the construct level or to assess reliability at the item level with Cronbach's alpha (Diamantopoulos & Winklhofer, 2001; Howell, 1987, p. 121). Although discussions concerning formative indicators have been ongoing for several decades, guidelines for constructing indices based on formative indicators have only been developed during the last several years. Diamantopoulos and Winklhofer (pp. 271–272) provide a summary of critical procedures in successful index construction: content specification, indicator specification, indicator collinearity, and external validity.

The content or scope of the factors in our model—Arrangements, Willingness, and Opportunity-Ability—were specified by selecting theoretically and statistically established indicators as items in the index. These items were then summed and represent an index that specifies the domain of content for each formative construct.

Indicator specification means that the "items used as indicators must cover the scope of the factor as described under the content specification." As mentioned above, the formative indicators or items (responses to appropriately designed script-cue questions) assigned to each construct were then summed together, Thus, a scale or index was formed with a unique meaning that derives from the contribution of all items when taken together (Nunnally, 1978).

Indicator collinearity indicates the importance of low intercorrelations between formative indicators within an index. Accordingly, we ran an assessment of intercorrelations between the formative items in each of the three constructs and found no evidence of multicollinearity.

Every attempt was made to assure external validity through thorough search of the literature and consultation with expert panels. Accordingly, we believe that in assembling previously used script cues (see Appendix) to reveal meaning within a unique but wellbounded domain, we have been able to utilize script-cue recognition as an appropriate measurement method for this study.

Data Analysis

The hypothesis to be tested requires several statistical tests in order to examine differences among the three groups (entrepreneurs, franchisees, and managers), based on the three constructs of entrepreneurial scripts (Arrangements, Willingness, and Opportunity-Ability).

The first examination tool employed was multivariate analysis of variance (MANOVA). It is also an excellent tool to test differences among groups with multiple variables because it concurrently considers the covariance among the variables. Since age and education have been shown to differ among our studied groups, it is appropriate to partial off the variation due to these covariates. Thus, analysis of covariance (ANCOVA) and multivariate analysis of covariance (MANCOVA) were used to examine the differences among the three groups of interest. These tests provide results analogous to ANOVA and MANOVA while controlling for any potential effect that might be attributed to age or education.

A second tool used, multiple discriminant analysis (MDA), established the nature of the differences among the three groups when all variables were examined concurrently. MDA is a statistical tool that calculates linear combinations of multiple variables (discriminant functions) that will discriminate between or among groups better than any other linear combinations (Tatsuoka & Tiedeman, 1954). Because in this analysis there are three groups (entrepreneurs, franchisees, and managers), the maximum number of discriminant functions that can be calculated is n - 1, or two. The three variables in the analyses are Arrangements, Willingness, and Opportunity-Ability.

Finally, because this research focuses on the differences between franchisees and each of the other two groups (entrepreneurs and managers), a series of follow-up univariate *t*-tests were employed to analyze differences based on each of the variables of Arrangements, Willingness, and Opportunity-Ability. These difference tests were conducted between two sets of two groups each: (1) between franchisees and entrepreneurs, and (2) between franchisees and managers. Due to the repeated significance tests performed between groups, a Bonferroni adjustment in the expected significance level (α) was made (Bland & Altman, 1995). Since three *t*-tests were run between each set of two groups, the significance level was divided by three. Thus, the more-stringent significance level utilized was $\alpha = .05/3 = .0167$.

Results

The primary research question calls for an examination of the differences in expert entrepreneurial scripts among three studied groups: (1) entrepreneurs, (2) managers, and

Table 2

Univariate and Multivariate Significance Tests for MANCOVA and ANCOVA of Groups with Age and Education as Covariates

Univariate analysis of covariance: Differences among groups on each dependent variable

Dependent variable	Test statistic	p Value	
Arrangements	F = 3.33	<.0380	
Willingness	F = 8.19	<.0004	
Opportunity-Ability	F = 12.08	<.0001	

Multivariate analysis of covariance: Differences among groups on all dependent variables

Multivariate test	Test statistic	<i>p</i> Value	
Wilks' Lambda	Λ = .8525	<.0001	
Pillai's Trace	V = .1774	<.0001	
Hotelling-Lawley Trace	U = .2085	<.0001	
Roy's Greatest Root	$\Theta = .1608$	<.0001	

(3) franchisees. The ANCOVA and MANCOVA analyses, presented in Table 2, examined differences among these three groups while controlling for any variance attributed to age or education. Significant differences among groups were identified on all three dependent variables of Arrangements, Willingness, and Opportunity-Ability in the ANCOVA analysis. The MANCOVA results show that when differences in Arrangements, Willingness, and Opportunity-Ability significant differences is a statistically significant difference (p < .000) in these scripts among the three groups.

Since significant differences were found among the groups, additional analyses were conducted to explore the nature of those differences. Results from the multiple discriminant analysis identified two discrete, significant discriminant functions (p < .000; p < .027). The discriminant function coefficients, established using a varimax rotation reveal that Discriminant Function 1 is primarily comprised of Opportunity-Ability (.890) and Willingness (.588) scripts. Discriminant Function 2 is comprised almost entirely of Arrangements (.997) scripts. These findings are consistent with theoretical expectations that individuals differentiate "doing" or enacting script requirements (willingness/ability) from their concern for script "entry" (arrangements) (Leddo & Abelson, 1986).

The plot of the group centroids on the discriminant functions is provided in Figure 1. Coordinates for each group centroid are indicated on the graph. The Cartesian grid presented in Figure 1 has the horizontal *x*-axis representing Function 1 (Opportunity-Ability and Willingness) and the vertical *y*-axis representing Function 2 (Arrangements). Entrepreneurs, managers, and franchisees plot in three different quadrants of this grid according to the derived coordinates.

Additional *post hoc* tests were conducted to further clarify the differences found between the franchisees and each of the other two groups individually. Univariate *t*-tests

Figure 1

Graph of Functions at Group Centroids

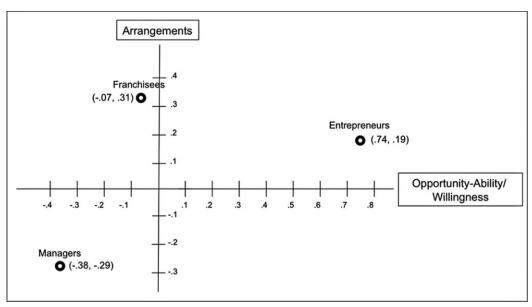


Table 3

Differences Between Franchisees and Entrepreneurs—Univariate t-Tests

	Expertise level	Mean	Standard deviation	t-Tests	
				t Statistic	Significance
Arrangements	Franchisee	3.638	1.388	.295	.769
	Entrepreneur	3.518	1.397	.275	
Willingness	Franchisee	4.431	2.196	-2.670	.009
	Entrepreneur	5.463	1.777		
Opportunity-ability	Franchisee	3.657	1.896	-4.137	.000
	Entrepreneur	5.352	1.750		

helped to delineate differences in entrepreneurial expertise between franchisees and entrepreneurs, and between franchisees and managers. First, in comparing franchisees to entrepreneurs, *t*-tests show a significant difference between the two groups in Willingness (p < .009) and Opportunity-Ability scripts (p < .000); but no significant difference was found in Arrangements scripts (p < .769). These results are presented in Table 3.

Conversely, when comparing franchisees with managers, *t*-tests show a significant difference in Arrangements scripts (p < .000), but no significant difference was found in either Willingness (p < .125) or Opportunity-Ability scripts (.170), as shown in Table 4.

	Expertise level	Mean	Standard deviation	t-Tests	
				t Statistic	Significance
Arrangements	Franchisee	3.638	1.388	3.748	.000
	Manager	2.755	1.250		
Willingness	Franchisee	4.431	2.196	1.545	.125
	Manager	3.936	2.009		
Opportunity-Ability	Franchisee	3.657	1.896	1.379	.170
	Manager	3.511	1.966		

Differences Between Franchisees and Managers-Univariate t-Tests

The foregoing results lead us to several observations concerning the research question, which we discuss in the following section.

Discussion

In this study, we set out to discover the extent to which franchisees differ cognitively from traditional entrepreneurs and managers, specifically with respect to their entrepreneurial knowledge structures, or expert scripts. We find that entrepreneurs exhibit expert scripts across the board in Arrangements, Willingness, and Opportunity-Ability. Franchisees, however, exhibit Arrangements scripts similar to those of entrepreneurs but a comparatively lower level of Opportunity-Ability and Willingness scripts. When compared with managers, franchisees exhibit a higher level of Arrangements scripts but a similar level of Opportunity-Ability and Willingness scripts. In short, franchisees appear to possess entrepreneur-type Arrangements scripts but entrepreneurial Willingness and Opportunity-Ability scripts measured at levels similar to managers. We interpret this to mean that franchisees can make the arrangements necessary for venturing-such as providing or accessing the required financial capital, and taking essential steps toward protecting against competitive imitation—but they lack comparable expertise in areas such as risk taking, opportunity recognition, and venture diagnostic ability. In this respect, and consistent with Williams (1999), franchisees appear indeed to have a differential skill set to that of independent entrepreneurs. This study shows that, generally, such differences are more strongly related to Willingness and Opportunity-Ability scripts than to Arrangements scripts, and have general implications that include the following: (1) higher-thanexpected difference from entrepreneurs, and (2) franchisee developmental censoring. This study also has implications for entrepreneurship/franchise research and practice.

General Implications

One useful result of this study is evidence that franchisees seem cognitively to be less like entrepreneurs than previously thought. While franchisees generally have the necessary Arrangements scripts, they appear more likely to rely on the franchisor (or franchise business model) to balance the need for Willingness and Opportunity-Ability scripts, or expertise. While previous literature (as noted in Table 1) has focused largely on the idea of franchisees as entrepreneurs, the results of our study tend to better support the idea that franchisees are cognitively more similar to nonentrepreneurial managers.

The outcomes of this study also lend credence to the speculation that the unique social relationship, upon which the franchisor-franchisee relationship is based, has strong implications on the development of the franchisee skill set. Given the lower level of Willingness and Opportunity-Ability scripts of franchisees as compared to entrepreneurs, it appears, indeed, that franchisees do not have, nor do they develop, the full range of entrepreneurial scripts possessed by independent entrepreneurs. Because franchisees seem to more closely resemble managers than entrepreneurs (in that they appear to be more like managers with add-on Arrangements scripts), it seems likely that the franchisee skill set will emphasize the expertise to marshal needed resources and make necessary arrangements to buy and manage a franchise, but without sufficient expertise to go it alone. We note, however, that the lack of difference between franchisees and managers on two of the three script dimensions we tested does not necessarily mean that they have the same script, only that they do not differ in terms of the degree to which they conform to a more generalized entrepreneurial script from which we drew to create the measurement cues. And even in this case the results should be interpreted with care, because a null finding could easily be a function of, for example, sampling or measurement error.

These observations do, however, support Shane's (2003, p. 116) assertion that "people with (cognitive) characteristics that other people do not have will make decisions to exploit the same opportunities that other people will not choose to exploit." This study demonstrates the general idea of differential opportunity exploitation among independent entrepreneurs, managers, and franchisees, depending upon type of entrepreneurial script.

Implications for Research

The comparative lack of Willingness and Opportunity-Ability scripts evidenced in franchisees as compared to entrepreneurs has notable implications for franchising research. In this study we documented cognitive differences among franchisees, their independent entrepreneur counterparts, and nonentrepreneur managers. Because these results suggest a somewhat counter-intuitive assertion—that franchisees are more like managers than entrepreneurs—more research is needed to further explore the extent of this new framing and the effect that the differences we have found might have on explanations of new venture formation. Pertinent areas of future research include the following: the study of nascent franchisees, the further mapping of franchisor scripts/ expertise, the examination of the differences between successful and nonsuccessful franchisees using the cognitive perspective, and the exploration of franchisee expertise within a framework of managerial scripts.

First, the foregoing observations lead us to suggest that research is needed on the cognitive characteristics and information processing skill sets of nascent franchisees. It is unclear whether nascent franchisees exhibit Arrangements scripts *a priori*, or if the scripts are developed through the franchising experience. Understanding the levels of expert scripts found in nascent franchisees will have important implications on the extent to which Arrangements scripts, separate from Willingness and Opportunity-Ability scripts, are developed through the franchising process.

Second, in addition to looking solely at franchisees, further studies might also focus on franchisors to answer questions that arise from the new perspectives suggested by these findings. In the case of entrepreneurial franchisors, we should investigate franchisor levels of entrepreneurial expert scripts. Future research should consider the extent to which franchisors are the true expert entrepreneurs in the franchisor–franchisee relationship, and whether this relationship is, in actuality, a symbiotic blending of two necessary but not sufficient script types (e.g., as suggested by EIPT: *entry* is distinct from *doing*, but both are necessary for expert results).

Third, as suggested earlier, future studies might also focus on the difference between successful and nonsuccessful franchisees. Our study surveyed only franchisees in business, but additional research is needed to ascertain the extent to which failed franchisees have significantly different knowledge structures from successful franchisees. For example, we should examine whether a lack of Arrangements scripts leads to franchisee failure, or simply the failure to choose to enter the franchise business. For successful franchisees, the franchisor (or maybe the franchise business model) appears to compensate for a franchisee core competency misfit, allowing franchisees to purchase franchises outside their area of expertise. But further research is needed to explore the extent of this possible compensating influence. For instance, is franchisee failure the result of a poor business model that fails to compensate for a franchisee's lack of Willingness and Opportunity-Ability scripts, and, if so, what elements of a business model are most essential to compensate for a franchisee's lack of expert scripts? Accordingly, this study prompts a wide range of opportunities for further examination of franchisees within the context of entrepreneurship research.

A final area of inquiry prompted by this research is the examination of managerial scripts, and the positioning of franchisees within those scripts. It is important to note that managerial scripts are not necessarily the inverse of entrepreneurial scripts. Since this research shows the tendency for franchisees to exhibit entrepreneurial scripts that resemble the entrepreneurial scripts of managers, it would be very interesting to explore the similarities and differences between franchisees and managers within the framework of managerial cognitive script cues.

Implications for Practice

Understanding that franchisees are more likely to have Arrangements scripts but often are less likely to have Willingness and Opportunity-Ability scripts has important implications for the selection and training of franchisees, for the franchise investment decision, and for socially responsible applications such as poverty alleviation.

Selection and training practices are an obvious first implication of our findings. For example, knowing that the franchisees can be successful without high levels of Willingness and Opportunity-Ability scripts, franchisors might choose to focus on Arrangements scripts when selecting franchisees. Regarding training, since guided preparation from an outside source leads to better long-term growth for new ventures (Chrisman, McMullan, & Hall, 2005), guided preparation for franchisees (from an outside source—the franchisor) should focus on doing the job required of Willingness and Opportunity-Ability scripts. Our results suggest that franchisors should ensure that their franchise business model can compensate for the franchisee's lack of Willingness and Opportunity-Ability scripts.

Furthermore, having identified the differences in entrepreneurial cognition between successful franchisees, independent entrepreneurs, and managers, potential entrepreneurs may be able to better make informed decisions regarding the selection of the types of entrepreneurial activities with which they become involved. In deciding whether to go it alone or become a franchisee, potential entrepreneurs can use appropriate tools to assess their own skill set and determine their own levels of entrepreneurial expertise with an eye to matching strengths and opportunities. That is, with an understanding of the Arrangements, Willingness, and Opportunity-Ability scripts such individuals may or may not have, they might be better able to determine if franchising is a proper fit for them.

Additionally, a better understanding of franchisee expertise also has important implications for the use of franchising as a tool in making a positive social difference, for example, in poverty alleviation. It is believed that franchising can become a powerful means of helping developing countries achieve economic growth and reduce unemployment, by providing jobs, services, and management training (Falbe & Dandridge, 1992). Our findings suggest that not all aspiring entrepreneurs in developed or developing settings have the sufficient skill set to create a new venture. Franchising can, in some measure, address this concern. Since Arrangements, Willingness, and Opportunity-Ability scripts are necessary for entrepreneurial expertise regardless of country, location, or culture (Mitchell, Smith, et al., 2002), franchising might be a feasible answer for would-be entrepreneurs in developing countries who lack Willingness and Opportunity-Ability scripts, and where existing infrastructure for providing Arrangements (e.g., foreign aid funding or microcredit) can be refined to facilitate broader use of the franchise model.

Limitations

The foregoing results should be considered in light of study limitations. First, this study applies Expert Information Processing Theory to a previously unexplored domain: the comparative cognitions represented by the scripts of independent entrepreneurs, managers, and franchisees. Accordingly, we have, of necessity, extended prior research methods to construct and examine new formative indicators of the Arrangements, Willingness, and Opportunity-Ability knowledge-structure constructs. We acknowledge that the study of franchisees within the entrepreneurship research context is still developing and that our findings are a next-step point of reference, rather than being dispositive of the relevant issues.

Also, concerning measurement using the script cue methodology (e.g., Mitchell et al., 2009), we are aware that some readers might observe that certain items that are designed to cue scripts, particularly Arrangements scripts, might also point to real differences between entrepreneurs, franchisees, and managers that may or may not be due to differences in their underlying cognitive scripts (e.g., I presently: [a] control acquisition or expansion funds . . . vs. [b] will need to raise financing . . .). This is not an unusual observation, given that cognition is not directly observable, and that accordingly, certain context-relevant "objects" must be included in problem statements to enable the distinction between deep versus surface thinking to be detected (e.g., Glaser, 1984, p. 98). Therefore, while we did not exclude such cues due to their serviceability to the foregoing task, we nevertheless examined the results with and without such cues, and noted that the conclusions would remain unchanged in their absence but we then left them in the analysis to avoid violating the assumptions necessary when formative indicators are utilized.

Additionally, the study utilizes a purposeful sample, and contains a small number of students with managerial experience within the manager group. However, we do not believe that these sampling issues materially impinge upon the results, since respondents in each group were demographically similar and reflect a cross-section of business experiences and industries. The nonrandom sample calls for caution in generalization of results since all elements of each target population may not be represented. Yet, the sampling methodology included respondents identified through multiple sources, from multiple geographic regions, and via multiple contact lists. Furthermore, the manager

category is sufficiently broad to encompass a very wide range of limited-experience respondents. Thus, while we have not fully eliminated the limitations posed by the adjustments to measurement techniques required, and the purposeful sample data in our sample, we have taken what we believe to be reasonable steps to bound our interpretation; and therefore suggest that—despite these limitations—the measures and sample are appropriate for the exploratory focus of the study.

Conclusion

A franchise represents a remarkably sophisticated yet flexible social system that may have been taken for granted due, ironically, to its own effectiveness. It is a familiar tale: entrepreneur-specialists in need of capital and expansion form a bond with franchiseegeneralists. Often, this combination works well for both parties—possibly much better when working together than when working separately. Interestingly, it has been this quasi-unitary attribute that has made franchising more impenetrable from a research standpoint than it might have otherwise been. And hence, it has been easy to oversimplify this set of complex social interrelationships, and as a result, to less-than-thoughtfully commingle franchisees with entrepreneurs in the new venture creation blender.

But, as we have found, these two groups are certainly not identical; and in some cognitive respects, they are not at all the same. We position this finding, not in criticism of franchisees, nor of entrepreneurs for that matter. Without this variegation in the relative endowments contributed to the franchisor–franchisee system of value creation, the remarkable and resilient synthesis that provides opportunity where it would otherwise neither form nor be enacted (to the detriment of all concerned) would fail to materialize. We therefore foresee the future of franchise research at the entrepreneurship intersection reflecting the multidimensional system-based attributes evident in our findings; and we invite the further study this framing enables.

Appendix: Script Cue Items That Comprise the Measurement Scales

This questionnaire helps you to identify your personal approach to getting involved with a new business. Please CIRCLE THE LETTER (a) or (b) TO SHOW THE ANSWER THAT DESCRIBES YOU MOST CLOSELY. (Note: As indicated by the variable number, items were not arranged in this order in the actual questionnaire. The response expected by entrepreneurial expert respondents is listed as the first response in this Appendix.)

Arrangements Construct

- 18. I presently:
 - (a) control acquisition or expansion funds in an ongoing business, or have my own funds available for venturing.
 - (b) will need to raise financing for my venture from third parties.
- 36. I could:
 - (a) raise money for a venture if I didn't have enough.
 - (b) provide an investor with a lot of very good ideas for a new venture.
- 14. My new venture is/will be:
 - (a) protected from competition by patent, secret technology, or knowledge.
 - (b) based on a product or service with no "barriers to entry."

- 35. My new venture is/will be:
 - (a) protected from competition by franchise or other territory restrictions.
 - (b) based on a product or service which may experience a lot of competition within a territory.
- 45. I:
 - (a) can often see opportunities for my plans to fit with those of other people.
 - (b) rarely find that results match what I expect.
- 20. In the last three years:
 - (a) the size of the pool of people and assets I control has grown.
 - (b) I have not extended my business control over people or assets.

Willingness Construct

- 37. Do you want things:
 - (a) open to the possibilities.
 - (b) settled and decided.
- 41. Are you more comfortable in:
 - (a) new situations.
 - (b) familiar territory.
- 33. Would you say you are more:
 - (a) action oriented.
 - (b) accuracy oriented.
- 38. I have:
 - (a) enormous drive.
 - (b) high respect for service, generosity, and harmony.
 - 7. When investing in a new venture, I think it is worse to:
 - (a) wait too long, and miss a great opportunity.
 - (b) plunge in without enough information to know the real risks.
- 12. Is it worse to:
 - (a) waste your time thinking over an opportunity.
 - (b) commit time and money to a cause that may not succeed.
- 31. I don't mind:
 - (a) being committed to meet a regular payroll if it means that I can have a chance at greater financial success.
 - (b) giving a little of the value I create to the company that hired me.
- 28. If you had additional money to put to work, would you put it into a venture:
 - (a) where you have a "say," even if there is no track record.
 - (b) managed by those you trust, who have a proven track record.
- 32. I am looking for a:
 - (a) place to invest my resources.
 - (b) better way to manage my resources.

Opportunity-Ability Construct

- 44. When I see a business opportunity I decide to invest based upon:
 - (a) how closely it fits my "success scenario."
 - (b) whether I sense that it is a good investment.

- 29. New venture success:
 - (a) follows a particular script.
 - (b) depends heavily on the pluses and minuses in a given situation.
- 40. The new venture stories I recall:
 - (a) illustrate principles necessary for success.
 - (b) are a telling commentary on the foibles of human nature which can rarely be predicted.
- 9. When confronted with a new venture problem I can:
 - (a) recall quite vividly the details of similar situations I know about.
 - (b) usually figure out what to do, even if it is by trial and error.
- 16. It is more important to know about:
 - (a) creating new ventures.
 - (b) business in general—staying diversified.
- 42. I feel more confident:
 - (a) that I know a lot about creating new ventures.
 - (b) in my overall business sense.
- 27. I am more:
 - (a) aware of many new venture situations, some which succeeded, and others which failed, and why.
 - (b) familiar with my own affairs, but keep up on business in general.
- 11. When someone describes a problem with a new business I:
 - (a) recognize key features of the problem quickly, and can suggest alternatives from examples I can cite.
 - (b) use my instincts to suggest questions which should be asked to solve the problem.
- 48. I often:
 - (a) see ways in which a new combination of people, materials, or products can be of value.
 - (b) find differences between how I see situations and others' perspectives.
 - 4. If asked to give my time to a new business, I would decide based on how this venture fits:
 - (a) into my past experience.
 - (b) my values.

REFERENCES

Abbott, V. & Black, J.B. (1986). Inferences in comprehension. In J.A. Galambos, R. Abelson, & J.B. Black (Eds.), *Knowledge structures* (pp. 123–142). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Abelson, R.P. & Black, J.B. (1986). Introduction. In J.A. Galambos, R.P. Abelson, & J.B. Black (Eds.), *Knowledge structures* (pp. 1–18). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Bacharach, S.B. (1989). Organizational theories: Some criteria for evaluation. Academy of Management Review, 14(4), 496–515.

Baker, T. & Nelson, R.E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366.

Baron, R.A. & Henry, R.A. (2006). Why do some entrepreneurs achieve extraordinary success? Insights from basic research on exceptional performance. Bloomington, IN: Babson College Entrepreneurship Research Conference.

Bates, T. (1995). A comparison of franchise and independent small business survival rates. *Small Business Economics*, 7, 377–388.

Bates, T. (1998). Survival patterns among newcomers to franchising. *Journal of Business Venturing*, 11, 113–130.

Baucus, D.A., Baucus, M.S., & Human, S.E. (1996). Consensus in franchise organizations: A cooperative arrangement among entrepreneurs. *Journal of Business Venturing*, *11*(5), 359–378.

Berlew, D. (1975). *The nature of entrepreneurs*. Proceedings of Project ISEED (International Symposium on Entrepreneurship and Enterprise Development), Columbus, Ohio.

Bhide, A.V. (2000). The origin and evolution of new businesses. Oxford: Oxford University Press.

Bird, B.J. (1989). Entrepreneurial behavior. Glenview, IL: Scott, Foresman and Company.

Bland, J.M. & Altman, D.G. (1995). Multiple significance tests: The Bonferroni method. *British Medical Journal*, *310*(6973), 170.

Bonachich, E. (1973). A theory of middleman minorities. American Sociological Review, 38, 176-195.

Boyd, N.G. & Vozikis, G.S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18(4), 63–77.

Bryant, P. (2006). Self-regulation and decision heuristics in entrepreneurial opportunity evaluation and exploitation. *Management Decision*, 45, 732–748.

Busenitz, L.W. & Barney, J.B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1), 9–30.

Charness, N., Krampe, R., & Mayer, U. (1996). The role of practice and coaching in entrepreneurial skill domains: An international comparison of life-span chess skill acquisition. In K.A. Ericsson (Ed.), *The road to excellence: The acquisition of expert performance in the arts and sciences, sports, and games* (pp. 51–80). Mahwah, NJ: Lawrence Erlbaum Associates.

Chase, W.G. & Simon, H.A. (1973). The mind's eye in chess. In W.G. Chase (Ed.), *Visual information processing* (pp. 215–281). New York: Academic Press.

Chi, M.T.H., Glaser, R., & Rees, E. (1982). Expertise in problem solving. In R. Sternberg (Ed.), Advances in the psychology of human intelligence (Vol. 1, pp. 17–76). Hillsdale, NJ: Erlbaum.

Chin, W.W. (1998). Issues and opinion on structural equation modeling. *Management Information Systems Quarterly*, 22, vii–xvi.

Chrisman, J.J., McMullan, E., & Hall, J. (2005). The influence of guided preparation on the long-term performance of new ventures. *Journal of Business Venturing*, 20, 769–791.

Clarkin, J.E. & Rosa, P.J. (2005). Entrepreneurial teams within franchise firms. *International Small Business Journal*, 23(3), 303–334.

Combs, J.G., Michael, S.C., & Castrogiovanni, G.J. (2004). Franchising: A review and avenues to greater theoretical diversity. *Journal of Management*, *30*, 907–931.

Corbett, A.C. & Hmieleski, K.M. (2007). The conflicting cognitions of corporate entrepreneurs. *Entrepreneurship Theory and Practice*, *31*, 103–121.

Crowne, D.P. & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence*. New York: Wiley.

De Carolis, D.M., Litzky, B.E., & Eddleston, K. (2009). Why networks enhance the progress of new venture creation: The influence of social capital and cognition. *Entrepreneurship Theory and Practice*, *33*, 527–545.

de Groot, A. (1978). Thought and choice and chess. The Hague: Mouton. (Original work published 1946).

Dew, N., Read, S., Sarasvathy, S.D., & Wiltbank, R. (2009). Effectual versus predictive logics in entrepreneurial decision-making: Differences between experts and novices. *Journal of Business Venturing*, 24, 287–309.

Diamantopoulos, A. & Winklhofer, H. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*, 38(2), 269–277.

Douglas, E.J. & Shepherd, D.A. (1999). Entrepreneurship as a utility maximizing response. *Journal of Business Venturing*, 15, 231–251.

Englebrecht, A.R. (1995). Women business owners in traditional and nontraditional industries: Exploring the differences. Dissertation, University of Utah, Salt Lake City.

Ericsson, K.A. (1996). *The road to excellence: The acquisition of expert performance in the arts and sciences, sports and games.* Mahwah, NJ: Lawrence Erlbaum Associates.

Ericsson, K.A. (2002). Towards a procedure for eliciting verbal expression of non-verbal experience without reactivity: Interpreting the verbal overshadowing effect within the theoretical framework for protocol analysis. *Applied Cognitive Psychology*, *16*(8), 981–987.

Ericsson, K.A., Krampe, R.T., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, *100*(3), 363–406.

Evans, D. & Leighton, L. (1986). Some empirical aspects of entrepreneurship. *American Economic Review*, 79(3), 519–535.

Falbe, C.M. & Dandridge, T.C. (1992). Franchising as a strategic partnership: Issues of co-operation and conflict in a global market. *International Small Business Journal*, 10, 40–52.

Falbe, C.M., Dandridge, T.C., & Kumar, A. (1999). The effect of organizational context on entrepreneurial strategies in franchising. *Journal of Business Venturing*, *14*, 125–140.

Fiske, S.T. & Taylor, S.E. (1984). Social cognition. Reading, MA: Addison-Wesley.

Ghemawat, B. (1991). Commitment. Cambridge, MA: Harvard University Press.

Glade, W.P. (1967). Approaches to a theory of entrepreneurial formation. *Explorations in Entrepreneurial History*, 4(3), 245–259.

Glaser, R. (1984). Education and thinking. American Psychologist, 39, 93-104.

Grunhagen, M. & Mettelstaedt, R.A. (2005). Entrepreneurs or investors: Do multi-unit franchisees have different philosophical orientations? *Journal of Small Business Management*, 43, 207–225.

Gustavsson, V. (2004). *Entrepreneurial decision-making: Individuals, tasks and cognitions*. Jönköping, Sweden: Jönköping International Business School.

Hisrich, R.D. & Brush, C.D. (1986). *The woman entrepreneur: Starting, managing, and financing a successful new business*. London: Lexington Books.

Howell, R. (1987). Covariance structure modeling and measurement issues: A note on interrelations among a channel entity's power sources. *Journal of Marketing Research*, *24*, 119–126.

Hull, D., Bosley, J.J., & Udell, G.G. (1982). Renewing the hunt for means of identifying potential entrepreneurs by personality characteristics. *Journal of Small Business Management*, 20(2), 11–19.

Jambulingam, T. & Nevin, J.R. (1999). Influence of franchisee selection criteria on outcomes desired by the franchisor. *Journal of Business Venturing*, *14*, 363–395.

Jensen, M. & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, *3*, 305–360.

Kaufmann, P.J. (1999). Franchising and the choice of self-employment. *Journal of Business Venturing*, 14, 345–362.

Kirzner, I.M. (1982). The theory of entrepreneurship in economic growth. In C.A. Kent, D.L. Sexton, & K.H. Vesper (Eds.), *Encyclopedia of entrepreneurship* (pp. 272–276). Englewood Cliffs, NJ: Prentice-Hall.

Krueger, N.F.J. & Brazeal, D.V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 19, 91–104.

Krueger, N.F. & Carsrud, A.L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship and Regional Development*, *5*, 315–330.

Krueger, N.F. & Dickson, P.R. (1993). Perceived self-efficacy and perceptions of opportunity and threat. *Psychological Reports*, 72, 1235–1240.

Laux, C. (2001). Project-specific external financing and headquarters monitoring incentives. *Journal of Law Economics and Organization*, 17, 397–412.

Leddo, J. & Abelson, R.P. (1986). The nature of explanations. In J.A. Galambos, R. Abelson, & J.B. Black (Eds.), *Knowledge structures* (pp. 103–122). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Lord, R.G. & Maher, K.J. (1990). Alternative information-processing models and their implications for theory, research, and practice. *Academy of Management Review*, *15*, 9–8.

Low, M.B. & MacMillan, I.C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management*, 14(2), 139–161.

Lurigio, A.J. & Carroll, J.S. (1985). Probation officers' schemata of offenders: Content, development, and impact on treatment decisions. *Journal of Personality and Social Psychology*, 48, 1112–1126.

McClelland, D.C. (1961). The achieving society. Princeton, NJ: van Nostrand.

McClelland, D.C. (1965). Need achievement and entrepreneurship: A longitudinal study. *Journal of Personality and Social Psychology*, 1, 389–392.

McClelland, D.C. (1968). Characteristics of successful entrepreneurs. In *Keys to the future of American business, proceedings of the third creativity, innovation, and entrepreneurship symposium* (pp. 1–14). Framingham, MA: U.S. Small Business Administration and the National Center for Research in Vocational Education. Addendum.

McGrath, R.G. (1999). Falling forward: Real options reasoning and entrepreneurial failure. Academy of Management Review, 24(1), 13–30.

McKeithen, K.B., Reitman, J.S., Reuter, H.H., & Hirtle, S.C. (1981). Knowledge organization and skill differences in computer programmers. *Cognitive Psychology*, *13*, 307–325.

Merton, R.K. (1975). On theoretical sociology. New York: Free Press.

Mitchell, R.K. (2005). Tuning up the global value creation engine: The road to excellence in international entrepreneurship education. In J.A. Katz & D.A. Shepherd (Eds.), *Advances in entrepreneurship, firm emergence and growth* (Vol. 8, pp. 185–248). Greenwich, CT: JAI Press.

Mitchell, R.K., Busenitz, L., Bird, B., Gaglio, C.M., McMullen, J.S., Morse, E.A., et al. (2007). The central question in entrepreneurial cognition research. *Entrepreneurship Theory and Practice*, *31*(1), 1–27.

Mitchell, R.K., Busenitz, L., Lant, T., McDougall, P.P., Morse, E.A., & Smith, B. (2002). Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research. *Entrepreneurship Theory and Practice*, *27*(2), 93–104.

Mitchell, R.K., Mitchell, B.T., & Mitchell, J.R. (2009). Entrepreneurial scripts and entrepreneurial expertise: The information processing perspective. In A.L. Carsrud & M. Brännback (Eds.), *Understanding the Entrepreneurial Mind: Opening the black box* (pp. 97–140). New York: Springer.

Mitchell, R.K., Smith, J.B., Morse, E.A., Seawright, K.W., Peredo, A.M., & McKenzie, B. (2002). Are entrepreneurial cognitions universal? Assessing entrepreneurial cognitions across cultures. *Entrepreneurship Theory and Practice*, *26*, 9–32.

Mitchell, R.K., Smith, J.B., Seawright, K., & Morse, E.A. (2000). Cross-cultural cognitions and the venture creation decision. *Academy of Management Journal*, *43*, 974–993.

Moran, P. (2005). Structural vs. relational embeddness: Social capital and managerial performance. *Strategic Management Journal*, 26, 1129–1151.

Neisser, U. (1967). Cognitive psychology. New York: Appleton-Century-Crafts.

Nunnally, J.C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Oxenfeldt, A. & Kelly, A. (1969). Will successful franchise systems ultimately become wholly-owned chains? *Journal of Retailing*, 44, 69–83.

Pedhazur, E.J. & Schmelkin, L.L. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, NJ: Erlbaum.

Posner, M.I. (1973). Cognitions: An introduction. Glenview, IL: Scott, Foresman and Company.

Read, S.J. (1987). Constructing causal scenarios: A knowledge structure approach to causal reasoning. *Journal of Personality and Social Psychology*, *52*, 288–302.

Rumelt, R.P. (1987). Theory, strategy, and entrepreneurship. In D.J. Teece (Ed.), *The challenge: Strategies for industrial innovation and renewal* (pp. 136–152). Cambridge, MA: Ballinger.

Sarasvathy, D.K., Simon, H.A., & Lave, L. (1998). Perceiving and managing business risks: Differences between entrepreneurs and bankers. *Journal of Economic Behavior and Organization*, 33(2), 207–225.

Sarasvathy, S.D. (2008). *Effectuation: Elements of entrepreneurial expertise*. Northampton, MA: Edward Elgar.

Shane, S. (2003). A general theory of entrepreneurship: The individual-opportunity nexus. Northhampton, MA: Edward Elgar.

Shane, S. & Spell, C. (1998). Factors for new franchise success. *Sloan Management Review*, *Spring*, 43–50.

Simon, M., Houghton, S.M., & Aquino, K. (2000). Cognitive biases, risk perception, and venture formation: How individuals decide to start companies. *Journal of Business Venturing*, *15*(2), 113–134.

Sloan (2010). Franchise business pros and cons. Startup Nation. Available at http://smallbusiness.yahoo.com/ r-article-a-57789-m-1-sc-8-franchise_business_pros_and_cons-i. Accessed 26 March 2011.

Sorenson, O. & Sorenson, J.B. (2001). Finding the right mix: Franchising, organizational learning, and chain performance. *Strategic Management Journal*, 22, 713–724.

Stanworth, J. & Curran, J. (1999). Colas, burgers, shakes, and shirkers: Towards a sociological model of franchising in the market economy. *Journal of Business Venturing*, 14, 323–344.

Stewart, W.H., Jr, Watson, W.E., Carland, J.C., & Carland, J.W. (1998). A proclivity for entrepreneurship: A comparison of entrepreneurs, small business owners, and corporate managers. *Journal of Business Venturing*, *14*, 189–214.

Stuart, R.W. & Abetti, P.A. (1990). Impact of entrepreneurial and management experience on early performance. *Journal of Business Venturing*, 5(3), 151–162.

Sundbo, J., Johnston, R., Mattsson, J., & Millett, B. (2001). Innovation in service internationalization: The crucial role of the frantrapreneur. *Entrepreneurship and Regional Development*, *13*, 247–267.

Tatsuoka, M.M. & Tiedeman, D.V. (1954). Statistical methodology in educational research. *Review of Educational Research*, 24(5), 402–420.

Taylor, S.E., Lerner, J.S., Sherman, D.K., Sage, R.M., & McDowell, N.K. (2003). Are self-enhancing cognitions associated with healthy or unhealthy biological profiles. *Journal of Personality and Social Psychology*, *85*, 605–615.

Vesper, K. (1980). New venture strategies. Englewood Cliffs, NJ: Prentice-Hall.

Vesper, K. (1996). New venture experience. Seattle: Vector Books.

Walsh, J.P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science*, 6(6), 280–321.

Williams, D.L. (1999). Why do entrepreneurs become franchisees? An empirical analysis of organizational choice. *Journal of Business Venturing*, 14, 103–124.

Withane, S. (1991). Franchising and franchisee behavior: An examination of opinions, personal characteristics, and motives of Canadian franchisee entrepreneurs. *Journal of Small Business Management*, 29(1), 22–29.

Kristie W. Seawright is an Associate Professor in the Marriott School of Management at Brigham Young University.

Isaac H. Smith is a doctoral student in the David Eccles School of Business at the University of Utah.

Ronald K. Mitchell, Professor of Entrepreneurship at the Rawls College of Business at Texas Tech University, holds the Jean Austin Bagley Regents Chair in Management.

Richard McClendon is Associate Director in Planning and Assessment at Brigham Young University.

The authors wish to thank the Center for Entrepreneurship and the Center for Economic Self-Reliance in the Marriott School at Brigham Young University, and Professor Bruce Brown for support for this research.