

## **CAREER AS ANTECEDENT OF ENTREPRENEURIAL DECISION-MAKING: UNCOVERING THE ROLE OF PREDICTION AND CONTROL**

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### **ABSTRACT**

This study explores how career experiences shape entrepreneurs' preferences for causal and effectual decision logics. Through a grounded theory approach, based on verbal protocols and interviews, we distinguish four career profiles. Each profile represents different emphases on control and prediction and varying degrees to which entrepreneurs prefer effectuation and causation.

### **INTRODUCTION**

When starting a new venture entrepreneurs are confronted by a sequence of decision tasks that may define and shape the venture's evolution (Aldrich, 1999; Eisenhardt & Schoonhoven, 1990; Kimberly & Bouchikhi, 1995). Studying the nature of cognitive differences in approaching these decisions is therefore essential for entrepreneurship research (Baron, 2004; Grégoire, Corbett, & McMullen, 2011; Mitchell et al., 2007). Research efforts have made a significant progress by identifying and distinguishing between two decision-making logics that are commonly applied in entrepreneurial settings: causation and effectuation (Sarasvathy, 2001). Causation is best described as a deliberative reasoning model that emphasizes prediction, and prioritizes planning and systematic analysis before action (Sarasvathy, 2001, 2008). Effectuation, on the other hand, is a set of heuristics that emphasize non-predictive control by making decisions that favor immediate action (Sarasvathy, 2008; Wiltbank, Dew, Read, & Sarasvathy, 2006). A growing stream of studies (for an overview see Perry, Chandler, & Markova, 2011) proposed that experts - defined as highly experienced and successful entrepreneurs - predominantly rely on effectuation to frame decision problems. Put simply, the career experience of expert entrepreneurs in starting and operating new ventures is argued to shape the ways in which they process information, reason, and make decisions (Dew, Read, Sarasvathy, & Wiltbank, 2009). Yet, non-experts, novice entrepreneurs, and even non-entrepreneurs often rely on effectuation as well (Sarasvathy, 2008; Brettel et al., 2011). Theory thus provides a useful, but incomplete, answer to the question: *how career experience shapes entrepreneurial decision-making?*

In its attempts to answer this question extant literature has rarely ventured beyond the obvious notion of entrepreneurial expertise, which implies a long career as an entrepreneur (Gustafsson, 2006; Mitchell, 1994; Sarasvathy, 2008). While this is indeed a sensible starting

point, such narrow view on entrepreneurial experience per se may blind us from other forms of career experience that may be no less conducive to effectuation. For instance, the fact that effectuation was induced from the study of expert entrepreneurs does not necessarily mean that effectual principles are an exclusive feat of experts (Read & Dolmans, 2012). As a matter of fact, Sarasvathy (2008) concedes that both effectuation and causation are integral parts of human reasoning and are ubiquitous in domains other than entrepreneurship. In other words, while past research has consistently showed that career experience is a key factor shaping entrepreneurial cognition, our understanding of it remains limited to the confines of entrepreneurial expertise. This failure to distinguish more clearly how career experiences that predate entrepreneurial entry may influence entrepreneurial cognition echoes louder when acknowledging that the vast majority of entrepreneurs emanate from employment in established firms and thus lack any prior entrepreneurial experience (Sorensen & Fassioto, 2011). In fact, a case can be made that we actually understand very little about the antecedents of effectuation and causation.

In the current paper we advance the investigation of how careers influence entrepreneurial decision-making. We argue that, as commonly assumed by Sarasvathy and colleagues (e.g., Dew et al., 2009; Sarasvathy, 2008), it is indeed career experience that drives entrepreneurs' preference for a certain decision-making logic. However, we deviate from the implicit assumption that career experience exclusively refers to experience as an entrepreneur. Instead, we explicitly attend to a set of career properties that are not necessarily related to the task of establishing new ventures. Using a grounded theory approach, we inductively identify several such properties through in-depth interviews and verbal protocol analysis with 28 Dutch entrepreneurs. In addition, we build on insights from contemporary career theory (Sullivan & Baruch, 2009) to show that some of the defining characteristics of the entrepreneurial experience itself such as uncertainty, emergence, improvisation, and enactment (cf. Morris, Kuratko, & Schindehutte, 2011) are omnipresent in careers long before an individual decides to become an entrepreneur (e.g., Weick, 1996). In fact, our analysis demonstrates that the dimensions of prediction and control (Wiltbank et al., 2006), which underlay effectuation and causation (Sarasvathy, 2008), are also fundamental to the ways in which individuals manage their careers.

This study makes several contributions. First, we address the question of how entrepreneurs obtain their cognitive structures (Mitchell et al., 2007). Thus, the study expands our knowledge on the antecedents of entrepreneurial decision-making, and in particular of effectuation (Sarasvathy, 2008), by illustrating how a preference to use a certain decision logic is rooted in general practices of career enactment over time. We thereby expect to clear some of the ambiguity that still subsists around the source and nature of entrepreneurs' cognitive differences (Grégoire et al., 2011). Furthermore, we respond to calls to distinguish between antecedents of entrepreneurial cognition as they relate to the very experience of entrepreneurship (Grégoire et al., 2011). Third, the study contributes to career research by illustrating how certain career properties are anchored and can ultimately be traced back to either the logic of prediction or the logic of control (cf. Wiltbank et al., 2006). Finally, by introducing contemporary career theory to the study of entrepreneurial cognition we heed the recent call to build links between career studies and entrepreneurship (Sorensen & Fassioto, 2011).

## **THEORETICAL BACKGROUND**

The overarching conceptual differentiator between effectuation and causation is one's view of the future as it relates to different degrees of predictability and controllability. Wiltbank

et al., (2006) suggest that effectuation can be classified as a decision logic that enables non-predictive control while causation highlights control through prediction. They go on to argue that prediction and control are independent orthogonal dimensions and can therefore generate a framework of four possible logics. This means that effectuation and causation can be seen as extreme positions while their elements can be blended to create two 'hybrid' decision logics. Each decision making logic is therefore reflecting different emphases on control and prediction and yielding different behavioral responses with respect to one's (1) basis for taking action; (2) predisposition toward risk and resources; (3) predisposition toward outsiders; and (4) predisposition toward unexpected contingencies (Sarasvathy, 2001; Dew et al., 2009).

Entrepreneurship scholars increasingly note that, like other properties of decision making, different emphases on prediction and control are likely to be determined by one's prior career experience (Cyert & March, 1963; Gabrielsson & Politis, 2011; Gunz & Jalland, 1996; Sarasvathy, 2008; Ucbasaran, Westhead, & Wright, 2009). For example, when facing a decision task, individuals neither comprehensively search for, nor accurately interpret, all available options and subsequent consequences because their cognitive capacity is limited (March & Simon, 1958; Simon, Houghton, & Aquino, 2000). Instead, they can be expected to rely on simplified cognitive models that originate from past experiences (Fern, Cardinal, & O'Neill, 2012; Gunz & Jalland, 1996). Put differently, individuals tend to repeat the things they learned and exploit the knowledge they possess, with the result being that decision-making is primarily a function of prior experience (Politis, 2005; Ronstadt, 1988).

Thus, in this paper we explicitly focus on entrepreneurs' careers, viewing them as a vehicle of experience accumulation and an important predictor of an entrepreneur's preference for causal or effectual decision-making. Careers are defined as "an individual's work-related and other relevant experiences, both inside and outside of organizations, that form a unique pattern over the individual's life span" (Sullivan & Baruch, 2009: 1543). Thus, one's career conveys not only a description of positions held, but also consists of the total experience of an individual's working life (Gabrielsson & Politis, 2011). We can therefore expect to identify some stable patterns between entrepreneurs' prior career experience and their preferred decision-making logic, with different career experiences leading to different preferences (Gunz & Jalland, 1996).

## METHODS

### Research Strategy

The study was exploratory in that we knew what the key constructs (i.e., career experience, effectuation, causation) were, but not the specific variables and relationships between them. In addition, as the phenomenon in question was not previously investigated, our objective was to build theory rather than test theory (Eisenhardt, 1989). Accordingly, a grounded theory approach (Glaser & Strauss, 1967) was adopted.

### Sample

Our sample consisted of 28 entrepreneurs, all of which are firm founders and/or owners of at least one business. Participants were required to have at least five years of work experience, either as employees, or as self-employed.

### Data Collection

Data collection efforts consisted of 27 face-to-face interviews and one telephone interview. In order to collect data on both the respondents' decision-making preference and their careers, the interview procedure was divided in two distinct parts. The first part involved a think-aloud verbal protocol (Ericsson & Simon, 1993), in which the respondents were asked to continuously think aloud as they were faced with decision-making assignments common to setting up a new venture (cf. Sarasvathy, 2008). After completion of the verbal protocol, a semi-structured interview was held with each respondent on his or her career. Interviews were chosen as method of data collection in this part in order to efficiently collect rich empirical data that could be used for comparative work (Saunders, Lewis, & Thornhill, 2007). The interview protocol was designed to elicit a detailed and lengthy chronological narrative of the respondents' career, starting from their education until setting up their (latest) venture.

### **Data Analysis**

Similar to our data collection, we decided to analyze the part on decision-making and the part on career behavior separately as this would ease the analysis process without influencing its final outcome. First, we coded the verbal protocols. We developed a coding scheme based on the inducted elements from the qualitative analysis by Sarasvathy (2008: 33-38). Since our objective was to merely determine the respondents' orientation in decision-making, we were able to use these pre-set elements. Based on the counts of codes in each transcript for the two decision-making logics, we labeled the respondents as either having a propensity towards effectual reasoning, causal reasoning, or no preference at all.

Afterwards, we continued with coding the career stories of our respondents following an inductive, grounded theory development process (Corbin & Strauss, 1990; Glaser & Strauss, 1967).

## **FINDINGS AND DEVELOPMENT OF PROPOSITIONS**

Our analysis of entrepreneurs' prior career experience and their preferred decision-making logic suggested four career profiles. The conceptual framework presented here begins with defining and illustrating the concepts that emerged from this research: (1) career goal orientation and (2) investments in career capital. Career goal orientation refers to the extent to which an individual sets, and pursues specific predetermined career goals (cf. Gould, 1979). Investments in career capital refer to the extent to which an individual engages in activities aimed to accumulate career capital (cf. Parker, Khapova, & Arthur, 2009). Similar to the framework of Wiltbank et al. (2006), these career properties are not an 'either or' proposition, but rather consist of both continua. Hence, combinations of the two dimensions yield four career profiles, which will be discussed in turn.

### **Quadrant 1 – The Navigators**

The individuals in this first quadrant maintained a high goal oriented strategy for building their careers and a low emphasis on actively increasing their career capital. We name them *navigators* as they solely navigated their way towards their predetermined goals. All individuals in this category had set themselves clear long-term goals to reach in their career, such as becoming a senior publisher or director of finance at their employing organization. Once determined, they engaged in focused and persistent pursuit of these goals. Concurrently, they did

not show any consideration to increasing their career capital in general. In line with the framework of Wiltbank et al. (2006), this career behavior is based on a high level of prediction and a low level of control. Results of the verbal protocol showed 68 per cent of all statements made by the entrepreneurs with this career profile were statements of causation. In other words, these entrepreneurs had a propensity to employ causal reasoning when faced with the task of setting up a new venture. Therefore we suggest:

*Proposition 1: Entrepreneurs with high career goal orientation and low active investment in career capital will show a propensity to employ causal reasoning in the process of new venture creation.*

#### **Quadrant 2 – The Responders**

The individuals in the second quadrant maintained a low level of both goal oriented career strategy and active investment in career capital. We name them *responders* as they merely responded to available means and factors in their environment through which their career took shape. In some way these individuals left their career to chance by maintaining an overall passive stance towards their career development. In line with Wiltbank et al. (2006), the career behavior of these individuals contains a low level of both prediction and control. They proceeded “by being flexible and adaptive to situations as they develop[ed]” (p. 985). In answering the verbal protocols, the entrepreneurs with this career profile did not show a particular preference for either type of reasoning; namely, 51 percent of all statements made by these entrepreneurs were statements of effectuation, and 49 percent were statements of causation. Thus we suggest:

*Proposition 2: Entrepreneurs with low career goal orientation and low active investment in career capital will equally employ effectual and causal reasoning in the process of new venture creation.*

#### **Quadrant 3 – The Builders**

The individuals in the third quadrant maintained a high level of both goal oriented career strategy and active investment in career capital. We name them *builders* as they persistently built their careers through pursuing goals and accumulating means. Similar to the navigators of the first quadrant, these individuals pursued future oriented and goal dominated careers (Gould, 1979). In line with the framework of Wiltbank et al. (2006), the career behavior of these individuals is based on a high level of both prediction and control. They calculated and planned their way towards their pre-envisioned destinations, stressing the role of prediction as discussed in previous sections. Nonetheless, at the same time, these individuals were also able to construct their career in a different manner, namely through their persistent accumulation of career capital. Results of the verbal protocol showed 52 per cent of all statements of the entrepreneurs with this career profile were statements of effectuation, and the other 48 per cent statements of causation. Thus, similar to the responders of the previous quadrant, these entrepreneurs had no propensity to employ either type of decision-making logic. Therefore we suggest:

*Proposition 3: Entrepreneurs with high career goal orientation and high active investment in career capital will equally employ effectual and causal reasoning in the process of new venture creation.*

#### **Quadrant 4 – The Creators**

The individuals in the fourth quadrant maintained a low goal oriented strategy for building their careers and a high emphasis on actively increasing career capital. We name these entrepreneurs *creators* as they created their career through transforming their career capital at hand into new career movements and opportunities. None of these individuals had set clear and predetermined goals to realize in their career. Some did have dreams, but held them lightly, “using them as visions of possibility rather than as aspirations that have to be realized” (Marshall, 1989: 287-288). They were however very active in accumulating their career capital, and it was through a focus on these means at hand that their careers took shape. In line with Wiltbank et al. (2006), this career behavior is based on a low level of prediction and a high level of control. Through imagining things they could accomplish in their career based on who they were, what they knew and whom they knew (i.e. their career capital), these individuals controlled their career and made prediction obsolete. Maybe not surprisingly then, in answering the verbal protocols, 80 percent of all statements made by the entrepreneurs with this career profile were statements of effectuation. Put differently, these entrepreneurs showed a propensity towards adopting effectual reasoning when faced with the task of setting up a new venture. Therefore we suggest:

*Proposition 4: Entrepreneurs with low career goal orientation and high active investment in career capital will show a propensity to employ effectual reasoning in the process of new venture creation.*

## CONCLUSION

This study explored the processes underlying the relationship between entrepreneurs' career and their propensity to adopt effectual or causal logic when starting a new venture. Based on our data analysis and literature review, we presented a framework that consists of four distinct career profiles characterized by varying levels and combinations of career goal orientation and investments in career capital, when each career profile is shown to be related to a particular decision logic. Further analysis illustrated how career goal orientation and investments in career capital are analogous to the notions of prediction and control, thereby explicating the mechanisms that link careers to entrepreneurial decision-making.

## ENDNOTES

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## REFERENCES AVAILABLE FROM THE AUTHOR(S)