

DESCRIBING THE ENTREPRENEUR: HOW APPROPRIATE IS THE FOUNDER/NON-FOUNDER DICHOTOMY?

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Abstract

Carland et al.'s (1984) definition of an entrepreneur consists of five dimensions: *establishment (founder/non-founder)*; *profit importance*; *growth orientation*; *innovative behaviour*; and the use of *strategic management practices*. In operationalising the Carland et al. (1984) definition, many studies have only used the *founder/non-founder* dichotomy to classify their samples into entrepreneurs and non-entrepreneurs. This study, therefore, has two principal objectives. First, to examine the relationship between each of Carland et al.'s (1984) five dimensions and three psychological attributes (*need for achievement*; *risk-taking propensity*; and *locus of control*) often used in the literature to differentiate entrepreneurs from non-entrepreneurs. Second, to determine the appropriateness of using the single dimension of *founder/non-founder* (as a proxy for Carland et al.'s (1984) complete definition) to differentiate between entrepreneurs and non-entrepreneurs (small business owners).

Our results suggest that each of the five dimensions suggested by Carland et al. (1984) may well be helpful in differentiating the entrepreneur from the small business owner. However, the *founder/non-founder* dichotomy may not be the most appropriate single dimension to use for this purpose. Where a single measure of entrepreneurship is desired, researchers may be better advised to use *innovative behaviour*, despite the difficulties involved with using a variable that is measured on a continuum, rather than being dichotomous.

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Introduction

Entrepreneurs have long been recognised for their role in adding value to a nation's economy by undertaking 'new combinations of means of production' (Carland et al. 1984, p. 354). It is generally accepted that entrepreneurs 'serve as agents of change; provide creative, innovative ideas for business enterprises; and help businesses grow and become profitable' (Kuratko and Hodgetts 1998, p. 32). The act of being an entrepreneur 'is the ability to create and build a vision from practically nothing' (Timmons 1994, p. 7). Therefore, to allow governments to foster and encourage entrepreneurship through targeted policy initiatives, it is essential that policy makers have a clear understanding about what constitutes an entrepreneur and entrepreneurial activity.

However, some researchers (Birley and Norburn 1987; Matsuda, Vanderwerf and Scarbrough 1994) have suggested that the various definitions of an entrepreneur used in prior studies are confusing, and in many cases can cause uncertainty as to their meaning. Further, the 'ambiguity surrounding ... the definition of entrepreneurship' may introduce bias into research findings (Ray 1994, p. 165). For this reason, Harvey and Evans (1995), Solymossy and Masters (2002) and Woo, Daellenbach and Nicholls-Nixon (1994) have all argued that an entrepreneur should be defined using the definition proposed by Carland et al. (1984).

According to Carland et al. (1984, p. 358), an entrepreneur 'is an individual who establishes and manages a business for the principal purpose of profit and growth (and) is characterized principally by innovative behaviour and employs strategic management practices'. In contrast, a small business owner 'is an individual who establishes and manages a business for the principal purpose of furthering personal goals' (Carland et al. 1984, p. 358). Thus, the definition of an entrepreneur proposed by Carland et al. (1984) contains five basic dimensions: *establishment status (founder or non-founder)*; *profit importance*; *growth orientation*; *innovative behaviour*; and the use of *strategic management practices*.

However, many past studies (purportedly using the Carland et al. (1984) definition) have relied on only one of these dimensions, namely: the *founder/non-founder* dichotomy (see Birley and Norburn 1987; Begley and Boyd 1987a; Begley and Boyd 1987b; Matsuda et al. 1994; Ray 1994; Ensley et al. 2000). However, it would seem that the decision to use a single dimension might be a function of convenience and ease rather than a rejection of the remaining four dimensions. For example, Begley and Boyd (1987a, p.100) acknowledged the various dimensions proposed for differentiating entrepreneurs from non-entrepreneurs but still used the *founder/non-founder* dichotomy, as this 'simple classification avoids dependence on subjective distinctions such as strategic preference and orientation toward innovation'.

Before adopting (in the interest of consistency) the definition of entrepreneurship proposed by Carland et al. (1984), we first need to carefully examine and evaluate the various dimensions contained within their definition. Therefore, this study starts with an examination of each of Carland et al.'s (1984) five dimensions compared to three psychological attributes (*need for achievement*; *risk-taking propensity*; and *locus of control*) often used in the literature to differentiate between entrepreneurs and non-entrepreneurs. We then look at the appropriateness of taking the single dimension of *establishment status (founder/non-founder)* and using this as a proxy for Carland et al.'s (1984) complete definition.

Psychological Attributes Associated with Entrepreneurship

As noted by Kamineni (2002, p. 89), the use of psychological attributes 'has found a prominent place in the entrepreneurship literature and hence cannot be ignored'. Furthermore, Kamineni (2002), argued that most of the research within the entrepreneurship literature has concentrated on: *need for achievement*; *risk-taking propensity*; and *locus of control*.

Need for achievement has long been recognized as being associated with entrepreneurs. McClelland (1961) pioneered the work in this area and showed that individuals with a high need for achievement required more achievement satisfaction and, therefore, would seek an entrepreneurial type job rather than

a job from which they would obtain less satisfaction. Subsequent empirical studies have supported the existence of a link between ‘entrepreneurship’ and need for achievement. For example, Perry, Meredith and Cunningham (1988), Lau and Busenitz (2001), and Lee and Tsang (2001) all found a positive relationship between an owner-operator’s need for achievement and their intended, or actual, business growth. Similarly, Begley and Boyd (1987b) reported that founders (a proxy for entrepreneurs) had a higher need for achievement than non-founders and Stewart et al. (1999) established that entrepreneurs had a higher need for achievement compared to both managers and small business owners.

Risk-taking propensity has been ‘conceptualized as one’s orientation toward taking chances in a decision-making situation’ (Sexton and Bowman 1985, p. 13). The day-to-day tasks of an entrepreneur and a manager are both recognised as involving some propensity for risk-taking. However, it has been suggested that, on average, entrepreneurs take more risks than managers, because entrepreneurs face a less structured and more uncertain environment (Kilby 1971; Schwer and Yucelt 1984). Prior research has confirmed that entrepreneurs appear to have a greater capacity to accept risks compared to both managers and the general public. For example, Shane’s (1996) historical study of the period from the late 19th through to the late 20th centuries found a positive relationship between risk-taking propensity and growth in the US national rate of entrepreneurship. Chen, Greene and Crick (1998) established that founders (a proxy for entrepreneurs) considered themselves more capable of successfully dealing with business risks than non-founders. Finally, a meta-analytic review by Stewart and Roth (2001) showed that the risk-taking propensity of entrepreneurs was greater than that of managers, and that owner-operators primarily concerned with venture growth had higher risk-taking propensities than those whose principal focus was on family income.

Locus of control refers to the ability an individual believes they have to influence events in their lives. ‘Internals’ believe they have influence over outcomes through their own abilities, efforts, or skills, while ‘externals’ believe that forces outside their control determine outcomes (Rotter 1966).¹ The logic for using locus of control in small business research is that it is thought to be closely linked to, but separate from, need for achievement and risk-taking propensity. Rotter (1966) found that individuals who had a high need for achievement usually had an internal rather than an external locus of control, while Brockhaus and Horwitz (1986, p. 27) considered that ‘Individuals who cannot believe in their ability to control their environment through their actions would be reluctant to assume the risks that starting a business would entail’. Studies comparing locus of control for entrepreneurs and managers have found that entrepreneurs are more internally orientated than managers. For example, Brockhaus (1975) showed that students with entrepreneurial expectations had higher internal locus of control values than those without such intentions. Ward (1993) also discovered that small business founders (a proxy for entrepreneurs) were significantly more ‘internal’ than non-founders, while Lee and Tsang (2001) revealed a significant positive relationship between internal locus of control and venture growth for a sample of Singaporean entrepreneurs. In addition, Boone, de Brabander and van Witteloostuijn (1996) and Boone, de Brabander and Hellemans (2000) established (for a group of Flemish furniture manufacturers) a correlation between internal locus of control and short and long-term financial performance, respectively. Thus, the literature suggests that entrepreneurs will be more internally oriented than non-entrepreneurs.

Methodology

Sample Selection

Data for this study came from a survey of the attitudes and expectations of SME owner-operators in the greater metropolitan region of Perth, Western Australia. A total of 490 SME owner-operators responded to a mail questionnaire. The survey instrument consisted of 16 pages and contained 247 items (only a sub-set of these items are relevant for this study). The response rate of 19.4% is considered reasonable given the length of the questionnaire and the nature of the population.

¹ Subsequent research by Levenson (1981) suggests that the initial dichotomy proposed by Rotter (1966) is actually a trichotomy where Rotter’s (1966) ‘external’ factor comprises two separable dimensions, ‘chance’ and ‘powerful others’.

Measurement of Variables

The five dimensions comprising Carland et al.'s (1984) definition of an entrepreneur were measured as follows:

Establishment (founder/non-founder): In response to the question 'How did you acquire your business?' respondents were required to select one of four possible answers: 'I purchased it'; 'I inherited it'; 'I founded it'; or 'Other'. Founders were then coded '1' with each of the other groups coded '0'.

Profit Importance: Profit importance was measured by respondents indicating how much importance they attached to 'Building your personal wealth'.² Measurement was by a seven-point Likert-type scale with responses ranging from '1' (not important) to '7' (very important).

Growth Orientation: Growth orientation was measured by respondents indicating how much importance they attached to 'Increasing your income opportunities',³ with measurement again by a seven-point Likert-type scale ranging from '1' (not important) to '7' (very important).

Innovative Behaviour: Following the lead of Stewart et al. (1999) and consistent with other entrepreneurship studies (see Sexton and Bowman 1985; Begley and Boyd 1987b; Mueller and Thomas 2001), preference for innovation was measured using statements from the Innovativeness sub-scale of the Jackson Personality Inventory (Jackson 1976). Our data collection consisted of seven items, each measured by a seven-point Likert-type scale ranging from '1' (strongly disagree) to '7' (strongly agree), giving a possible value for this variable ranging from 7 to 49.

Strategic Management Practices: Strategic management practice was measured using responses to the question 'How quickly does your business introduce new products/services?' Based on one of the inherent concepts within the strategic framework of Miles and Snow (1978), respondents had to select the answer that best described their business or situation from the following: 'Only to replace existing products' (coded 1); 'Only if compatible with existing products' (coded 2); 'Often second in with new products' (coded 3); and 'Often first in with new products' (coded 4). As such, this question proxies for entrepreneurial firm behaviour (Lyon, Lumpkin and Dess 2000), that is, the degree of actual firm innovation rather than an owner-operator's attitude towards innovation.

The three psychological attributes commonly associated with entrepreneurs (Kamineni 2002) were measured as follows:

Need for Achievement: Need for achievement was assessed with the relevant items from the frequently used Steers and Braunstein's (1976) Manifest Needs Questionnaire (Box, White and Barr 1993). Consisting of five items, measurement was by a seven-point Likert-type scale with responses ranging from '1' (strongly disagree) to '7' (strongly agree). Therefore, the possible values for this variable ranged from 5 to 35.

Risk-taking Propensity: To again remain consistent with Stewart et al. (1999) and other entrepreneurship researchers (Busenitz and Barney 1997), risk-taking propensity was measured using statements from the Risk sub-scale of the Jackson Personality Inventory (Jackson 1976). Our data collection consisted of six items, each measured by a seven-point Likert-type scale ranging from '1' (strongly disagree) to '7' (strongly agree), giving a possible value for this variable ranging from 6 to 42.

Internal Locus of Control: Internal locus of control was assessed by items from Lumpkin's (1988) abbreviated version of Levenson's (1981) Locus of Control Scale; similar to the approach taken by Box et al. (1993). This shortened version of the original scale contains three items from each of the internal, chance, and powerful others sub-scales. Measurement was equivalent to that for need for achievement and risk-taking propensity; that is, a seven-point Likert-type scale ranging from '1' (strongly disagree) to

² This item was selected from a list of owner goal statements in Kuratko, Naffziger and Hornsby (1997) and subsequently amended slightly on the basis of Australian research into owner-operator objectives (Woodliff, Watson, Newby and McDowell 1999; Newby, Watson and Woodliff 2004).

³ This item was also taken from Kuratko et al. (1997).

a '7' (strongly agree). As this study is only interested in the level of internal locus of control, the possible value for this variable ranged from 3 to 21.

Analysis and Results

Our initial task was to determine the extent to which the five dimensions contained in the Carland et al. (1984) definition of an entrepreneur are associated with three psychological characteristics commonly examined in the entrepreneurship literature (*need for achievement*; *risk-taking propensity*; and *locus of control*). Next we examined the appropriateness of using the *founder/non-founder* dichotomy to proxy for the complete Carland et al. (1984) definition.

Table 1 presents the results of the bi-variate analyses relating the individual dimensions (constructs) of Carland et al.'s (1984) definition to three psychological attributes often associated with entrepreneurship. Table 1 shows that all fifteen relationships were in the expected direction and fourteen of the pairings were statistically significant at the 0.05 level. This attests to the construct validity of each of Carland et al.'s (1984) five dimensions of entrepreneurship. Interestingly, however, the only relationship that was not significant was the pairing of *founder/non-founder* with *risk-taking propensity*. This result suggests that the single dimension of *founder/non-founder* may not be the most appropriate to use in classifying SME owners as either entrepreneurs or non-entrepreneurs. Indeed, the results presented in Table 1 suggest that *innovative behaviour* followed by *profit importance* might be the most suitable single dimensions for this purpose.⁴

Table 1
Comparisons Between Dimensions of Entrepreneurship and Psychological Attributes

Carland et al.'s (1984) dimensions of entrepreneurship (expected sign)		Psychological attributes		
		<i>Need for achievement</i>	<i>Risk-taking propensity</i>	<i>Internal locus of control</i>
Establishment (+) <i>Founder or non-founder</i>	Mean for founders	25.874	24.050	17.546
	Mean for non-founders	24.876	23.811	16.645
	t-statistic	3.005	0.493	4.259
	p-value (one-tailed)	0.001	0.311	0.000
Profit Importance (+) <i>Building your personal wealth</i>	Pearson's R	0.240	0.165	0.148
	p-value (one-tailed)	0.000	0.000	0.001
Growth Orientation (+) <i>Increasing your income opportunities</i>	Pearson's R	0.249	0.092	0.152
	p-value (one-tailed)	0.000	0.022	0.001
Innovative Behaviour (+) <i>Items from Jackson's (1976) personality inventory</i>	Pearson's R	0.431	0.268	0.233
	p-value (one-tailed)	0.000	0.000	0.000
Strategic Management Practices (+) <i>How quickly does your business introduce new products/services?</i>	Spearman's rho	0.189	0.115	0.098
	p-value (one-tailed)	0.000	0.006	0.016

Table 2 provides the results from bi-variate tests relating *establishment status (founder/non-founder)* to the other four dimensions in the Carland et al. (1984) definition. These results show that, with the exception of *innovative behaviour*, the founder/non-founder dichotomy appears to be a poor proxy for the other dimensions in the Carland et al. (1984) definition.

⁴ Based on an examination of the correlation coefficients (Pearson's R) which were highest for the dimension of *innovative behaviour* and second highest for *profit importance*.

Table 2
Bi-variate Tests of the Founder/Non-Founder Dichotomy

		Carland et al.'s (1984) dimensions of entrepreneurship			
		<i>Profit importance</i>	<i>Growth orientation</i>	<i>Innovative behaviour</i>	<i>Strategic management practice</i>
<i>Establishment</i>	Mean for founders	5.746	5.847	33.188	2.382
<i>(Founder/non-founder)</i>	Mean for non-founders	5.753	5.776	30.920	2.208
	t-statistic	-0.061	0.673	3.794	
	Mann-Whitney Z				1.523
	p-value (one-tailed)	0.476	0.251	0.000	0.064

In our final test of the validity of using the single dimension of *founder/non-founder* (to operationalise Carland et al.'s (1984) definition of an entrepreneur) we used binary logistic regression to see how well the psychological attributes and the four remaining Carland et al. (1984) dimensions were able to predict the *founder/non-founder* status of our sample.

Table 3
Binary Logistic Regression Tests of the Founder/Non-Founder Dichotomy

		Founder or Non-founder classified using:	
		<i>Carland et al. (1984) dimensions</i>	<i>Psychological attributes</i>
<u>Independent variables (expected sign)</u>			
Profit importance (+)	Coefficient	-0.052	
<i>Building your personal wealth</i>	p-value	0.607	
Growth orientation (+)	Coefficient	0.069	
<i>Increasing your income opportunities</i>	p-value	0.537	
Innovative behaviour (+)	Coefficient	0.055	
<i>Items from Jackson's (1976) personality inventory</i>	p-value	0.001	
Strategic management practice (+)	Coefficient	0.079	
<i>How quickly does your business introduce new products/services?</i>	p-value	0.422	
Need for achievement (+)	Coefficient		0.049
<i>Items from Steers and Braunstein's (1976) MNQ</i>	p-value		0.131
Risk-taking propensity (+)	Coefficient		-0.015
<i>Items from Jackson's (1976) personality inventory</i>	p-value		0.473
Internal locus of control (+)	Coefficient		0.150
<i>Items from Lumpkin's (1988) abbreviated scale</i>	p-value		0.002
Constant	Coefficient	-1.452	-2.853
	p-value	0.046	0.001
Nagelkerke pseudo-R ²		0.046	0.055
% correct	founders	94.7	92.9
	non-founders	7.8	12.4
	overall	63.8	64.7

The results presented in Table 3 again suggest that the *founder/non-founder* dichotomy may be inappropriate as a sole measure of an owner-operator's 'entrepreneurship'. The first column of Table 3 shows that the remaining dimensions of the Carland et al. (1984) definition were poor predictors of whether an owner-operator had established their business, especially in the classification of non-founders.⁵ Furthermore, although performing better, the three psychological attributes were also unable to adequately differentiate founders from non-founders; as can be seen by the low predictive accuracy (12.4%) for non-founders in the second column of Table 3.

Conclusion

This study sought to evaluate Carland et al.'s (1984) definition of an entrepreneur by comparing the five dimensions in that definition (*establishment status*, *profit importance*, *growth orientation*, *innovative behaviour*, and the use of *strategic management practices*) against three psychological attributes (*need for achievement*; *risk-taking propensity*; and *locus of control*) often used in the literature to differentiate between entrepreneurs and non-entrepreneurs. We were also interested to see whether the single dimension of *establishment status* (*founder/non-founder*) was an appropriate proxy for the complete Carland et al. (1984) definition.

Our results suggest that each of the five dimensions suggested by Carland et al. (1984) may well be helpful in differentiating the entrepreneur from the small business owner. However, the *founder/non-founder* dichotomy may not be the most appropriate single dimension to use as a means of distinguishing entrepreneurs from non-entrepreneurs. We found this dimension to be: the worst discriminator in Table 1; statistically significantly related to only innovative behaviour in Table 2; and poorly predicted by both the remainder of the Carland et al. (1984) dimensions and the three commonly cited psychological attributes of entrepreneurs (in Table 3). This finding may help to explain the apparently contradictory (Begley and Boyd 1987b)⁶ and inconsistent (Begley and Boyd 1987a)⁷ results in some prior entrepreneurship research where the definition of an entrepreneur has been based on the single dimension of *establishment status* (*founder/non-founder*).

Consistent with 'Schumpeterian' theory that the entrepreneur 'creatively destroys' the existing economic order through innovation (Schumpeter 1934), the results presented in Table 1 suggest that, where a single measure of entrepreneurship is desired, researchers may be better advised to use *innovative behaviour* (rather than the *founder/non-founder* dichotomy). This view is supported by Carland et al. (1984, p. 355) who noted that innovation is the 'central characteristic of ... entrepreneurial endeavour'.

As suggested earlier, the reason researchers have focussed on the *founder/non-founder* dichotomy may have more to do with measurement issues than any rejection of Carland et al.'s (1984) other dimensions. Kamineni (2002, p. 90) noted that using the definition proposed by Carland et al. (1984) may not provide researchers with 'a clearcut difference' between the entrepreneur and the small business owner. This is because (unlike *establishment status*, which is a dichotomous variable) the remaining four dimensions in the Carland et al. (1984) definition (*innovative behaviour*, *profit importance*, *growth orientation* and (to some extent) *strategic management practices*) are measured on a continuum, making it more difficult to distinguish the entrepreneur from the non-entrepreneur in any given sample. This measurement problem is, therefore, an area that future research could usefully explore.

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⁵ Only 13 out of 167 predictions, or 7.8%, were correct.

⁶ Begley and Boyd (1987b, p.90) found that internal locus of control was similar for both founders and non-founders, and for some other psychological attributes (such as *need for achievement* and *risk-taking propensity*) even though founders and non-founders were significantly different, 'the absolute differences (were) not large'.

⁷ For example, Begley and Boyd (1987a) examined 13 variables relating to personal, psychological and firm characteristics using the founder/non-founder dichotomy and found that statistically significant differences existed for only nine of the variables.

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