"LOCUS OF CONTROL AND ENTREPRENEURSHIP: A THREE—COUNTRY COMPARATIVE STUDY"
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LOCUS OF CONTROL AND ENTREPRENEURSHIP:
A THREE-COUNTRY COMPARATIVE STUDY

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Using the locus of control construct, entrepreneurs were compared with managers and MBAs in three European countries. The data points out that Latins are significantly more internal than people from more Northern cultures, i.e., French entrepreneurs and managers have lower scores on the locus of control scale than those from the United Kingdom and Germany. No significant differences were found between the Germans and the British in each of the three occupational roles. The French MBAs had significantly lower scores than the British MBAs.

In line with research findings from other studies, entrepreneurs in general were found to be more internal than the other two role occupants. Surprisingly, however, this was not the case for the French. It was hypothesized that the reason for such an anomaly could be a "Grandes Ecoles" effect, meaning that graduation from one of the elite schools in France, with the attendant privileges, creates a specific sense of control over one's environment. The research findings also suggest that locus of control by itself may not be sufficient to identify entrepreneurs.
Don't you believe, too, Hilde, that there are a few, special, chosen people who have been graced with the power and ability to want something, desire something, will something...so consistently and so...so inexorably...that they must get it at the end? Don't you believe that?

Henrik Ibsen - The Master Builder

After two decades of economic stagnation, entrepreneurial activity is on the increase across Western Europe. This widespread resurgence may be partly due to the process of European integration. With the imminent abolition of protected domestic markets, entrepreneurs are presented with unprecedented opportunities for growth. In a context in which cross-border entrepreneurial initiative will be on the rise, it becomes increasingly important to understand what distinguishes entrepreneurs in the various European countries.

Most of the studies of entrepreneurship have been oriented toward the individual entrepreneur and his characteristics. The desire of such interest groups as venture capitalists, banks, and government agencies to identify, select, and even train entrepreneurs has stimulated this orientation. If we assume that personality characteristics affect entrepreneurial behavior, measurement of entrepreneurial potential becomes crucial. How entrepreneurs rate on achievement motivation (McClelland,
1961, 1975; Durand, 1975; Lachman, 1980; Cromie & Johns, 1983; Pandey & Tewary, 1979; Wainer & Rubin, 1969); power orientation (Collins & Moore, 1970; McClelland, 1975); risk-taking propensity (Knight, 1940; Brockhaus, 1980a; Liles, 1979); neuroticism (Lynn, 1969); and tolerance of ambiguity (Dollinger, 1983) has received attention in the search to measure and identify.

One of the more frequently studied characteristics of entrepreneurs is locus of control, i.e., the perceived center of responsibility for the control of behavior (Rotter, 1966, 1971; Lefcourt, 1966). Internal locus of control refers to the belief that one has control over one's destiny and can attain wished-for goals. In contrast, external locus of control implies that the individual believes that outside forces control his or her destiny (Rotter, 1966).

An internal orientation has been found to be associated with entrepreneurial activity. This coincides with other research findings indicating that entrepreneurs show greater clarity in their perception of self than do other population groups and strive for independence and autonomy; present themselves as self-reliant; have a willingness to accept responsibility and try out new things; are more single-minded in the pursuit of their goals; take calculated risks; have a great talent for recovering from defeat; and, in general, seem to be "inner directed," meaning that they believe that their personal destinies come from within (Kets de Vries, 1977). Moreover, there is a body of research that suggests that entrepreneurs are more internal than managers (see Venkatapathy [1984] for a review). Internality thus emerges in many studies as a discriminating factor in uncovering
entrepreneurs (Brockhaus, 1980b; Cromie & Johns, 1983). Even though additional studies propose that we regard locus of control as a multidimensional construct (Erwee & Pottas, 1982; Furnham & Henry, 1980), meaning that other personality dimensions such as achievement motivation are interrelated to locus of control, many researchers still regard the latter as a major differentiating indicator of the personality of the entrepreneur.

Locus of control has also been used to test cross-national differences. There is evidence that some nationalities are more internally oriented than others. For example, McGinnies and his associates (1974) found that students in Sweden were more external than students from Japan, Australia, the United States, and New Zealand. Other researchers, such as Parsons and Schneider (1974), found that Japanese students had significantly higher external scores than the subjects of all the other countries in their study. In spite of the contradictory nature of some of these research findings, we strongly suspect that national differences play a major role here.

Nationality is an important factor in entrepreneurship for at least two reasons. The first is political: nations have different forms of government with their own implications as far as educational, legal, and fiscal systems are concerned. Some of these aspects are more conducive to entrepreneurship than others. Taking the locus of control measure into consideration, one might hypothesize that people living in countries where the social and economic order is tightly regulated by the government tend to be more externally oriented. In such situations the inhabitants would feel less in control of their destiny.
The second reason why nationality is important for entrepreneurship is psychological. The effect of early life experiences in the family and later educational experiences at school is not the same across national borders. From country to country people have different assumptions about the nature of human activity and varying ways of thinking that affect their beliefs. The extent to which individuals feel that they have an influence on the course of events in their lives is likely to be enmeshed in the cultural matrix within which they find themselves.

Unfortunately, little research has been done with the locus of control construct which looks explicitly at cross-national differences between entrepreneurs and other role occupants. However, some intriguing findings point toward a basic difference in Weltanschauung between managers from Latin countries (such as France, Italy, and Spain) and those from Northern cultures (such as England, the United States, and Scandinavia) (Laurent, 1986). These results lead to the assumption that entrepreneurs from Latin cultures are more internally oriented than those from Northern cultures. For example, in one study Italian entrepreneurs were found to be more internal than those from the United States (Shapero, 1975). One might speculate that, given the deeply entrenched bureaucracy in a country like Italy, with a comparative lack of governmental encouragement of entrepreneurial practices, a great deal more personal conviction and drive is required to become an entrepreneur.

The present research seeks to make a modest contribution to help fill the gap in the literature regarding cross-national
differences between entrepreneurs and other role occupants using the locus of control construct. Moreover, what differentiates this research project from other studies is that the cross-national dimension stands central. We explored potential differences among entrepreneurs in the three principal countries of the EEC (France, Germany and the United Kingdom) along two dimensions: 1) role occupancy: internality versus externality of entrepreneurs compared with other role occupants (managers and MBA students) within each country; and 2) nationality: internality versus externality among different nationalities. Based on previous findings, the objective of this exploratory research was to test two hypotheses:

1. Entrepreneurs are significantly more internally oriented than other role occupants
2. Latin entrepreneurs are significantly more internally oriented than those from more Northern cultures

In addition, we anticipated that the research could also give us an indication of the continuing usefulness of employing a construct like locus of control for the identification and selection of entrepreneurs.

Method

Data was gathered through a questionnaire mailed to three groups of subjects. One group, the entrepreneurs, were major owners and managers of a business venture who were not employed elsewhere, a definition suggested by Brockhaus (1980a). An initial sample of
750 entrepreneurs owning a major share of their companies was identified from a list of the MBAs who graduated from INSEAD, an international management institute located in France, between 1965 and 1986. The same questionnaire was sent to a random sample of 250 entrepreneurs listed on the Unlisted Security Market in the United Kingdom. Respondents were guaranteed confidentiality. One follow-up reminder was used. Of the 1000 entrepreneurs contacted, 281 provided usable responses, representing a response rate of 28.1 percent.

The second group, the managers, included 69 upper-middle level managers operating in a number of different companies who were all attending an executive development program at INSEAD. Questionnaires were given to them by the director of the program, who guaranteed confidentiality. Finally, the third group was composed of 168 MBA students from all over the world attending an Organizational Behavior course at INSEAD. The questionnaire was administered in English to all the respondents. All participants were fluent in English as attested to by their admission in the past or present to an INSEAD program.

Measures

Locus of Control - locus of control was assessed on the basis of the internal-external control construct (Rotter, 1966), a twenty-nine-item, forced-choice test including six filler items. Since the score is the total number of external choices, a low score on the scale indicates an internal orientation. Rotter (1966) has reported split-half and test-retest reliabilities for the I-E
scale ranging from .65 to .70. Our own reliability tests on this data are no different, with an alpha of 0.65.

Nationality - The subjects were asked to identify their nationalities at birth and at present, their current countries of residence, and countries lived in including the length of time. After various options were explored, it was decided to regard "nationality at birth" as the best measurement of cultural orientation (we excluded cases of respondents who were born in a country but had lived there fewer than ten years). For the purposes of this paper, we measured differences among three countries: France, Germany, and the United Kingdom. France represents the Latin group and Germany and the United Kingdom the Northern one.

Entrepreneurs - The term "entrepreneur" (derived from the French word "entreprendre," to undertake [Redlich 1949]) has been defined and redefined by historians, economists, and sociologists. As mentioned earlier, we chose for this paper the definition of Brockhaus (1980a). Entrepreneurs are major owners and managers of a business venture who are not employed elsewhere.

Managers - Managers were defined as upper-middle level executives participating in various INSEAD executive development programs in 1988.
Results

Our results supported both hypotheses. Latins (French entrepreneurs and managers) were significantly more internally oriented than subjects from Northern cultures (the United Kingdom and Germany). Over all, entrepreneurs were found to be more internal than managers and MBA students.

However, further analysis of the differences within each country by role occupant revealed that only among the subjects from the United Kingdom were entrepreneurs found to be significantly more internal than other role occupants. It should be noted that only in the United Kingdom was there representation of non-INSEAD-related entrepreneurs.

The means and standard deviations for all groups on the total I-E scale are presented in table 1. A standard chi-squared test was initially used to examine the hypothesis that the data for each country by role was normally distributed. The locus of control scale scores for the various groups were compared to normally distributed data of the same means and standard deviations. The test confirmed the normalcy of the data within a type I error probability of 5 percent (P<.05) for each of the subgroups examined. This justified the use of the t-statistics shown later.

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Table 1 around here

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A two-way analysis of variance was subsequently performed, the results of which are presented in table 2. This table shows that the interaction effect between role and country is barely insignificant ($P = .07$). As figure 1 shows, most of the interaction is due to the managers' group. Belonging to a specific country was significant at the .001 level; the mean I-E score was lowest (most internal) among subjects from France, followed by those from Germany and then the United Kingdom. The main effect of occupational role (entrepreneurs vs. managers vs. MBA students) was also significant at the .05 level. Entrepreneurs were found to be the most internal, followed by managers and then MBA students.

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Table 2 around here

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An analysis of the differences by country for each role and the differences by role within each country was subsequently performed. Table 3 shows the differences by country for each role. French entrepreneurs ($M = 7.341$) and managers ($M = 5.93$) are significantly ($P < .05$) more internal than entrepreneurs and managers from other nationalities (Germany and the United Kingdom). No significant differences were found at this level between Germans and British in each of the three occupational roles (entrepreneurs, managers, MBAs).

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Table 3 around here

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The analysis by role within each country (table 4) shows that British entrepreneurs are significantly more internal (P<.02) than British managers and MBAs (M=8.531). No significant differences at the .05 level were found among German entrepreneurs, managers, and MBA students. French managers were significantly (P<.02) more internal than French MBAs, whereas French managers were somewhat surprisingly found to be more internal than French entrepreneurs, although less significantly (P<.08).

Discussion

The findings of this study have certain implications for the understanding of the different characteristics of entrepreneurs in three European countries with regard to locus of control. The overall findings lend support to the concept that entrepreneurs are more internally oriented than managers. Entrepreneurs do indeed believe that they have control over the outcome of events. However, the results also indicate that this relationship, statistically valid (P<.06) overall, becomes less significant depending on the nationality of the respondents. Among the Germans and the French, there were no significant differences (P>.05) between entrepreneurs and managers concerning locus of control. Moreover, even though this finding did not reach the .05
significance range, French entrepreneurs were found to be less internal than French managers.

The cultural effect on the I-E scores became even more substantial when we compared the I-E mean scores of entrepreneurs and managers from the three countries. There we found that French entrepreneurs and managers were significantly (P<.05) more internal than their counterparts from Germany and the United Kingdom.

To this we may add that the student status of the MBAs may have led to their high external score: at the time of the investigation they may have felt that they had very little control over their destiny.

These findings raise the question why entrepreneurs in France are more internal than those in Germany or the United Kingdom. In order to answer this question we must consider entrepreneurs as people who do not fit the mold, individuals who are, in the words of Schumpeter (1931), "creative destroyers" unused to the boundaries of structured situations. Although many changes are occurring in France in the economic domain, we can argue in general that French entrepreneurs do not yet have a heroic image: they are not seen as "ideal types" or culture heroes. Becoming an entrepreneur is not as obvious a career option as is the case in some other countries. It may be argued that in France the highest occupational status tends to be associated with graduates of one of the "Grandes Ecoles," elite schools for higher education. Those who pass their extremely tough entrance examinations are considered to be the "chosen" in French society, and are the
most privileged careerwise. They are the ones who have the best career opportunities in the government and in public and private companies. Entrepreneurship is much less highly regarded; it is not a future to which a typical high school graduate aspires. Many other career options are more attractive and necessitate less of a deviation from the beaten path. The implication is that to become an entrepreneur in France one has to be even more self-motivated and driven than is usually the case.

In addition, we must take into account the way in which people react to a stifling bureaucracy: the more stifling the bureaucracy, the more internal the individual has to be in order to have the stamina to act outside the system and still beat it. Given the lack of status regard for entrepreneurs, we can assume that relatively little is done by the bureaucracy to accommodate them. Entrepreneurs face an uphill struggle in such a society.

The combination of the effects of the bureaucracy and of not being an "ideal type" implies that becoming an entrepreneur in France can be a very tough proposition. Only those who have an exceptionally strong inner drive will be able to succeed.

However, contrary to other research findings about differences between entrepreneurs and managers and surprisingly enough, our data indicates that the latter are more internal in France. To explain this result we may have to go back again to the French educational system. Graduates from the "Grandes Ecoles" necessarily feel very much in control of their destiny. Given the background of the managers in this study, many of whom were graduates of one of these elite institutions, it is no wonder
that they end up quite internal: they are automatically members of a privileged "club" and thus the likelihood of success is very great. Consequently, perceived helplessness due to factors in the environment is not a problem for them (Seligman, 1975). This "Grandes Ecoles" effect may explain why French managers end up being more internal than French entrepreneurs.

Given the inconsistency in findings insofar as assuming greater internality among entrepreneurs compared with other occupational groups, the construct of locus of control as a device to identify and select entrepreneurs must be used with caution when applied on a cross-national basis. A simple construct such as this may not be sufficient to capture the essence of an individual's style of dealing with the external environment. As has been indicated in other research (Hull, Bosley & Udell, 1982; Brockhaus & Horovitz, 1986), the construct may be more useful in identifying those people who are going to be successful whatever their occupational role, in particular, in distinguishing successful from unsuccessful entrepreneurs. In studying the personality characteristics of entrepreneurs, it may be advisable to search for more complex personality differentiation techniques.

Conclusion

Doing a cross-cultural study of locus of control has been helpful in pointing out certain limitations in the applicability of the construct. While locus of control may be useful in identifying a single personality characteristic, we should not jump to
conclusions about causality when considering its applicability for the purpose of selecting a specific personality type, i.e., identifying complex patterns of deeply embedded psychological characteristics which differentiate one person from another. We have seen that using the construct as a differentiating device becomes even more complicated when looked at in a cross-national context. A clinical anthropological approach may be needed in order to tease out the differences in the internality/externality dimension. In addition, we can ask ourselves if there is more than one type of entrepreneur, a factor which may contribute to the inconsistency in our results.

As these varied findings indicate, locus of control may be a useful but not sufficient construct in the identification and selection of entrepreneurs. In future research projects with identification of entrepreneurs as an objective, more holistic measurements may be required to arrive at a differentiating analysis. Locus of control by itself may not be enough to identify the type of character described by Ibsen in the epigraph.
Table 1: Means and SD of I-E Scores

<table>
<thead>
<tr>
<th></th>
<th>Entrepreneurs</th>
<th></th>
<th>Managers</th>
<th></th>
<th>MBA</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>41</td>
<td>7.34</td>
<td>3.00</td>
<td>15</td>
<td>5.93</td>
<td>3.28</td>
<td>31</td>
<td>8.09</td>
<td>3.17</td>
<td>7.36</td>
</tr>
<tr>
<td>Germany</td>
<td>35</td>
<td>8.66</td>
<td>3.92</td>
<td>9</td>
<td>9.89</td>
<td>3.06</td>
<td>13</td>
<td>9.31</td>
<td>4.82</td>
<td>9.00</td>
</tr>
<tr>
<td>U.K</td>
<td>64</td>
<td>8.53</td>
<td>3.67</td>
<td>11</td>
<td>11.27</td>
<td>2.68</td>
<td>30</td>
<td>11.07</td>
<td>4.09</td>
<td>9.54</td>
</tr>
</tbody>
</table>

Grand Mean 8.21 8.63 9.51

Note: Low scores represent a belief in internal control

Table 2: Analysis of Variance of I-E Scores (Total Scale)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country (A) (France, Germany, U.K)</td>
<td>2</td>
<td>9.05*</td>
</tr>
<tr>
<td>Role (B) (Entrepreneur, Manager, MBA)</td>
<td>2</td>
<td>4.52**</td>
</tr>
<tr>
<td>AXB (Interaction)</td>
<td>4</td>
<td>2.15</td>
</tr>
</tbody>
</table>

* P< 0.001  
**P< 0.05

Table 3: Differences in I-E scores by country for each role

Entrepreneurs

<table>
<thead>
<tr>
<th>Country</th>
<th>T-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>France (7.34) vs. Germany (8.66)</td>
<td>-1.63</td>
<td>0.054</td>
</tr>
<tr>
<td>France (7.34) vs. U.K (8.53)</td>
<td>-1.81</td>
<td>0.036</td>
</tr>
<tr>
<td>Germany (8.66) vs. U.K (8.53)</td>
<td>1.08</td>
<td>0.436</td>
</tr>
</tbody>
</table>

Managers

<table>
<thead>
<tr>
<th>Country</th>
<th>T-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>France (5.93) vs. Germany (9.89)</td>
<td>-2.93</td>
<td>0.004</td>
</tr>
<tr>
<td>France (5.93) vs. U.K (11.27)</td>
<td>-4.42</td>
<td>0.001</td>
</tr>
<tr>
<td>Germany (9.89) vs. U.K (11.27)</td>
<td>-1.08</td>
<td>0.149</td>
</tr>
</tbody>
</table>

M.B.A

<table>
<thead>
<tr>
<th>Country</th>
<th>T-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>France (8.09) vs. Germany (9.31)</td>
<td>-0.84</td>
<td>0.203</td>
</tr>
<tr>
<td>France (8.09) vs. U.K (11.07)</td>
<td>-3.17</td>
<td>0.001</td>
</tr>
<tr>
<td>Germany (9.31) vs. U.K (11.07)</td>
<td>-1.15</td>
<td>0.129</td>
</tr>
</tbody>
</table>
Table 4: Differences in I–E scores by role for each country

<table>
<thead>
<tr>
<th>Role</th>
<th>T-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurs (7.34) vs. Managers (5.93)</td>
<td>1.46</td>
<td>0.075</td>
</tr>
<tr>
<td>Entrepreneurs (7.34) vs. MBA (8.09)</td>
<td>-1.02</td>
<td>0.156</td>
</tr>
<tr>
<td>Managers (5.93) vs. MBA (8.09)</td>
<td>-2.12</td>
<td>0.02</td>
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</table>

FRANCE

<table>
<thead>
<tr>
<th>Role</th>
<th>T-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurs (8.66) vs. Managers (9.89)</td>
<td>-1.01</td>
<td>0.159</td>
</tr>
<tr>
<td>Entrepreneurs (8.66) vs. MBA (9.31)</td>
<td>-0.436</td>
<td>0.333</td>
</tr>
<tr>
<td>Managers (9.89) vs. MBA (9.31)</td>
<td>0.318</td>
<td>0.377</td>
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</table>

GERMANY

<table>
<thead>
<tr>
<th>Role</th>
<th>T-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurs (8.53) vs. Managers (11.27)</td>
<td>-2.95</td>
<td>0.002</td>
</tr>
<tr>
<td>Entrepreneurs (8.53) vs. MBA (11.07)</td>
<td>-2.90</td>
<td>0.002</td>
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<tr>
<td>Managers (11.27) vs. MBA (11.07)</td>
<td>0.18</td>
<td>0.428</td>
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REFERENCES


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