

ENTREPRENEURIAL RESEARCH - LESSONS LEARNED FROM SCOTT SHANE'S INTENSIVE PHD SEMINAR IN ENTREPRENEURSHIP

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ABSTRACT

Scott Shane is a key thinker in entrepreneurship theory and praxis. Twice yearly, he conducts a bi-annual Intensive PhD Seminar in Entrepreneurship (Seminar) focusing on theory building and key controversies in the entrepreneurship field, with rigorous attention to optimum methodologies for exploring original ideas.

The author was selected into the June 2008 Seminar and, in this paper, reflects on research gaps identified by Professor Shane, his approach to methodology and pedagogy. It offers an Australian perspective.

As Australian entrepreneurial study and research draws heavily on international literature and Australian researchers are necessarily remote, the Seminar challenged Australian researchers to identify unique aspects of Australian experience that, linked with an identified research gap, could contribute to international understanding of the entrepreneurship phenomenon.

INTRODUCTION

The author was one of only two Australians chosen to participate in a one-week intensive doctoral workshop conducted by Professor Scott Shane in Cleveland, Ohio in June 2008, supported by the Babson Institute (Seminar).

Professor Scott Shane is a leading entrepreneurship thinker and member of the editorial board of significant journals in the field. His stated workshop rationale was to improve the standard of entrepreneurial research. He also indicated directions for possible future research.

This paper provides a background to Professor Shane and the Seminar. It overviews key entrepreneurship study areas considered at the workshop. Given the workshop rationale, it then considers Professor Shane's approaches to research - both research gaps identified by him during consideration of his selected literature and design and methodology. It provides an Australian perspective as to the benefit of such an intellectual discourse as well as reflections as to pedagogy in the entrepreneurship field. It concludes with a short discussion of key propositions and implications.

BACKGROUND TO PROFESSOR SHANE AND THE SEMINAR

Professor Scott Andrew Shane is the A Malachi Mixon III Professor of Entrepreneurial Studies and Professor, Economics at Case Western Reserve University, Cleveland, Ohio. A key thinker in forming entrepreneurship theory, he is the author of over 60 scholarly articles including important papers in all key journals in the field. He has written or edited 10 books and serves on the editorial board of Management Science, having edited special editions in this and other journals on entrepreneurship theory. He is an angel investor and runs JumpStart an Ohio-based company funding high-growth business ideas and working with start ups.

Entrepreneurship readers know his Encyclopaedia of entrepreneurship, *The Foundations of Entrepreneurship*, (Shane 2002) as well as his many seminal papers which are standard references in entrepreneurship teaching programs (for example Shane & Venkataraman (2000), Eckhardt & Shane (2003)). He is a proponent of the learning and discovery approach to entrepreneurship, with opportunity as exogenous and discrete from individual entrepreneurial personality or psychology (Shane 2000). The ambit of his contribution to entrepreneurship theory and praxis (Shane 2008) includes identification of opportunity as key to the structural frame of entrepreneurship, entrepreneurship trends, new venture finance, firm organising processes, university technology transfer, franchising, contract terms and, more recently, genetics.

Participation in the Seminar, held twice each year in Cleveland Ohio USA, requires completion of a selection application form requiring the applicant to identify why he or she wishes to attend, along with some justification as to why he or she should be included. The author's application briefly described the national significance of her doctoral work, noting that she aimed for a legal/political outcome. She referred to a desire to exchange ideas with Professor Shane and other participants, observing that she tended to agree with the "discovery/ learning" theoretical approach. Selection appears to be made by Professor Shane himself.

A well-prepared, incisive, unassuming teacher, Professor Shane is passionate about rigorous research design, suffers no fools and annihilates ill-conceived methodologies and illogical or unjustifiable conclusions. Assuming thorough, extensive preparation and rigorous intellectual engagement, he regarded Seminar participants as future leaders of entrepreneurship thinking and teaching. Therefore, he demanded an intellectual standard commensurate to such responsibility. Many of the other Seminar participants work daily with significant leaders in entrepreneurship theory and praxis, including Michael Porter and Saras Sarasvathy as well as a variety of important international research teams.

OVERVIEW OF KEY ENTREPRENEURSHIP STUDY AREAS

The course focused on theory building and empirical testing, aiming to introduce students to key controversies in the entrepreneurship field, with rigorous attention to optimum methodologies by which to explore and test their own original ideas. Scott's syllabus identified that students are to discover insights within others' work, rather than merely critiquing it. From an overview of the field, half day session topics covered broad aspects of entrepreneurship theory, including defining entrepreneurship, whether entrepreneurs are different, entrepreneurial genetics, opportunity and process, why people start businesses, good and bad entrepreneurs, financing and business structures.

Whilst there is nothing unusual in such a structure within entrepreneurship pedagogy, Professor Shane day-by-day snared the underlying, apparently simple, question(s) at the base of each topic. By an approach that invited answers to such, apparently simple, question(s), he drew participants to the deep intellectual threads linking the papers and the new insights available from materials, many of which were already familiar. Like rich poetry, the papers now not only stood for their stated conclusions but marched vigorously within broad theoretical streams either holding up their end of the battle, found wanting, singing to a different drum or leading a new division into fertile new ground.

Shane's command of his subject matter and fearsome grounding in objective evidence renders him formidable in any debate that diverges from factual data. He is a passionate opponent of opportunistic research – i.e. researching what is readily accessible, simply because it is easy – insisting that the theoretical questions must be soundly formed and, from that and not otherwise, the optimum methodology should be derived and pursued.

Research Gaps

During the week, as discussion evolved, Professor Shane indicated aspects that warranted further research. As these suggestions formed no part of the course materials, the author noted each as it was raised. Surprisingly, when asked for a summary of these at the end, Professor Shane had kept no notes and could not easily recall the ideas that he had voiced topic by topic, debate by debate throughout the week. At the request of other students, the author compiled her notes into a memorandum which, after authorisation from Professor Shane, was circulated to them. Some of these research gaps were already contained within his earlier publications (for example Shane 2003), but remain as yet untackled.

Fruitful research directions are summarized below as understood and interpreted by the author. They are arranged in this paper according to personal reaction as to innovation or importance. It does not comprise a complete list. Also it does not purport to be a statement of Professor Shane's position on entrepreneurship research. It is merely the author's interpretation of Shane's comments, does not purport to hold those comments correct, but necessarily reflects her experience and academic interests. However, other researchers may, like the author, be able to use the summary so as to tailor their experience and academic interests to research endeavours that will advance, rather than otherwise, important theoretical lines of thought within the international entrepreneurship discipline.

Legal/Political Change

Shane considered research was required to examine how social, political, regulatory and legal change create and eliminate entrepreneurial opportunities (Drucker 1985), influence the relative distribution of productive and unproductive opportunities across locations (Venkataraman 1997) and offer a continuous supply of new information about different ways to use resources to enhance wealth (Shane & Venkataraman 2000), (Eckhardt & Shane 2003).

A first area for such potential research is examination of Schumpeter's creative destruction model (Schumpeter 1934, 1942), within the context of non-technological change, across locations, comparing the change with outcome. An example could be a study that compares firms that do, or do not, invest in lobbying. A second area arises from Baumol (1990), who recommended modifying Schumpeter's model to account for allocation of entrepreneurial activity between productive, unproductive or destructive activity. Baumol's historical study concluded that the allocation to productive activity or otherwise is influenced by the 'rules of the game'. Shane described this work as ideal for experimentation. Research could explore whether, or how, the sum of these activity areas could change or be increased, for example by education or otherwise, and, if so, whether that would impact the need for or nature of incentives. Within existing levels of activity, research could explore the manufacture of incentives for allocations within each of Baumol's categories. Research could test whether factors other than just the 'rules of the game', for example marginal returns or employment, could alter entrepreneurial activity allocations. It could examine relative distribution over time with potential to add value from new combinations of resources (Eckhardt & Shane 2003: 344). Finally, as Baumol's is an historical paper, research using contemporary data could examine legitimacy effects.

Entrepreneurs and Genetics

Shane's recent work on the genetics of entrepreneurs is fascinating, tentatively suggesting a genetic base for earlier evidence that the best predictor of entrepreneurial behavior is membership of a family that has been in business (Nicolaou & Shane (forthcoming) Nicolaou, Shane Cherkas and Spector (forthcoming), Nicolaou et al (forthcoming)). Family history studies, linkage with DNA markers or other genetic collaboration constitute an almost completely new, but fertile, field for entrepreneurship research.

Entrepreneurial Opportunity and Process

According to Shane, opportunity based study assists in examining links between opportunity discovery and mechanisms to overcome information asymmetry using techniques such as social capital, contracts or resource acquisition (Eckhardt & Shane 2003). Studies adopting an objective assessment of the opportunity, and holding opportunity constant, could manipulate a range of variables, for example various mechanisms or techniques, or 'people' values eg optimistic, pessimistic. As opportunity variance seems to be crucial (Eckhardt & Shane 2003), the opportunity and variance in the opportunity need to be controlled. Shane also suggested experimentation, for example, random assignment of entrepreneurial role and examination of difference(s) in approach to a variety of entrepreneurial games.

Kirzner (1973, 1997) noted that members of society have different beliefs as to the relevant value of resources, which are necessarily never entirely accurate, and that it is mistakes by market actors that create resource shortage or surplus, opening up opportunities that are achieved by creating a new means-to-end. Shane suggested exploring relationships between numbers of opportunities to take profit in comparison to investment in their creation, in this way testing Kirzner's work. For example, entrepreneurial R&D investment could be compared with spins offs by persons who acquired knowledge during employment within an incumbent enterprise.

New Firms

Shane considered that there exists almost no evidence comparing productivity and resource efficiency between new firms and existing firms, noting evidence that new firms are unproductive and that firm productivity increases with age. It is not known whether it is better to keep resources in existing firms or directed to new firms (Klevorick et al (1995), Amit, Glosten & Mueller 1993, Casson 1982). Further, in examining why people start businesses, there is need for a model that is not episodic and which examines entrepreneurship as a process not a state.

Teams

Shane considered that researching the nature and functioning of teams is extremely important because they potentially account for most entrepreneurial economic impact. He pointed to evidence indicating that venture capital (VC)-funded businesses survive more often. It is known that the composition of an entrepreneurial team is fundamentally different from businesses operating as solo or spouse ventures. Thus, it would seem that the team in a VC-funded business is drawn from different distributions. The dynamics of VC and non-VC teams, their ordering, who joins and when could be the subject of important research.

Funding and Contract

According to Shane, virtually nothing is known about the impact of non-VC funding except that, while non-VC funded organizations are more likely to die, there are clearly many that do not. Whilst a successful company can be financed without VC or angel assistance, and large sums of money are directed in that way, there is inadequate research as to how or what the goals of the various parties are in such a process or comparing successful/unsuccessful outcomes. For example, research could compare 25 VC backed and 25 non-VC backed high growth firms.

Whilst it is known that there is a relationship between capitalization and business success, it is not known whether resource constraint leads to less-optimum opportunity selection. For example, resource constraint may operate in a way that does not stop 'start up', but ultimately prevents success. Effectuation needs to be tested with data and an empirical base constructed as to linkage between resource constraints and effectuations. For example, entrepreneurs may resort to effectuation when resources become constrained or there may be movement between causality and effectuation according to resources.

Finally, Shane recommended further research concerning the terms of VC and other contracts, for example exclusive territory terms in franchise contracts (Azoulay & Shane 2001). Particularly significant could be the influence of reputation, managerial expertise, CEO removal clause and otherwise the balance of 'trade offs' in contracts.

Industry

Research as to the impact of industry may reveal important insights into entrepreneurship sub-categories. For example, the starting of spin offs may vary according to industry as may the knowledge characteristics of an industry. The creation of a team, and thus VC attractiveness, may be determined by industry or the nature of technology.

Business Planning

There is need to test how business planning helps improve decision-making, goal formation and resource management (Delmar & Shane (2003)), because other theories could account for the presence of the variable linking new venture facilitation to formal business planning i.e. a business plan may create a signal of quality or render a venture legitimate, outcomes that some businesses could achieve by alternative mechanisms. Research could examine whether removal of the business plan variable and its replacement with another 'good' management technique, results in the same or another finding. Research is needed to test the model over time. For example, it could be that a general effect across all time does not exist. Business planning and failure may be within the same broad time frame, creating an apparent cause and effect link, that research over time would contradict or explain more deeply.

RESEARCH DESIGN AND METHODOLOGY

Given his concern to encourage higher standards of entrepreneurship research, Professor Shane commented actively on research design and methods.

On general aspects of research in the field, he considered that some way should be found to overcome privacy issues that often lead to removal of top entrepreneurs from research studies because they can be

readily identified, given their rarity or uniqueness. These ‘top’ businesses are extremely important to study. Omitting them, or examining the mean, tends to reveal little because entrepreneurial variance is so great. In the same way, data on failures is needed as well as research examining the process of concluding that failure has, in fact, occurred.

Shane’s key research approach was to emphasise that one must first understand the phenomenon – that it is essential to carefully scrutinise the theory with attention to uncovering the ‘right’ assumptions. He advised that the researcher must force herself to look for alternative explanations in the research design, and deeply within the data relied upon by earlier researchers, considering the most plausible thing that it is suggesting - asking ‘what could be different?’, ‘do I believe the theory?’, ‘is the data consistent with the whole theory?’.

Only at the end of such a process, should the researcher begin to design new research. Rather than beginning on any data that might be readily ‘at hand’ or setting out to gather new data, the researcher should thoroughly research and understand what data sets might already exist that could be utilised to address the research question and proposed new research design. It is essential to establish what facts are already known and research what existing large data repositories exist. For example, he considered that the Kaufmann Foundation’s survey of US firms should be ‘rushed’ by researchers, not only for the ‘mine of information’ therein, but the benefits available from comparing research results arising from the use of the same survey sources. He recommended that researchers do less individual new data collection, making much greater use of foundation or government data and carefully considering other research work utilising identical source data.

It is essential to be clear as to what definition of “entrepreneurship” is being used. Given the absence, as yet, of an agreed definition within the field (Venkataram 1997, Gartner 1988), it is essential also in comparative work to ensure careful consideration of definitions used by earlier researchers and, wherever possible, make a correlation with the definition applied to the research underway. In approaching this issue he suggested omitting the word “entrepreneurship” in place of another word that accurately described the component of entrepreneurship under study. He urged researchers to avoid outcome-based statements in definitions of “entrepreneurship” and exercise care and precision as to the meaning of ‘performance’ (i.e. financial success, survival or another feature). During discussion in the Seminar, Shane himself was content to equate new venture start with “entrepreneurship”. In this, he differed from several definitions utilised in his own earlier research (Shane 1996, Shane & Venkataram 2000, Eckhardt & Shane 2003).

Shane was intrigued by experimentation and considered that it offered research potential, providing opportunity for studies that, whilst losing the real world, corroborated it.

Whilst exhibiting a tendency to prefer quantitative research, some qualitative research from case studies provided rich information. In response to a question from the author on the final afternoon, Professor Shane described ‘action research’ as consultancy and considered it less helpful to international knowledge growth, an approach that other researchers may dispute (for example, Cherry 1999, Easterby et al 1991 – also Williams 1982, Reason 1988). Otherwise qualitative methodologies were not discussed (compare Davidsson 2005).

In comparing entrepreneurial research with medical or scientific research, he noted that duplication of research result would generally not justify publication. Entrepreneurship researchers adopting a previously published idea, need to go beyond it - to a new idea or a better test.

Some practical research design “checklist” items included:

First order explanations are the best – i.e. do most people believe the proposition?

If data is not normal, the researcher needs to understand it as it is – not make it normal;

It is problematic to study one industry and draw broad, general conclusions – i.e. a grand theory should not derive from a narrow study;

Researchers following after a flawed article must address all the problems unresolved by the previous researcher or challenge the earlier theory;

There is need to constantly check:

that the research is measuring what the researcher thinks it is measuring;

unobserved variables – and observed variables also;

that appropriate tools are used to deal with endogeneity – not just accepting this problem;

selection correction are considered econometrically;
selection and unobserved heterogeneity problems are dealt with;
Account for likelihood at time. It is possible that something unrelated occurred at the same time which led to the observed phenomena. Would selection at another time reveal the same outcome?

AUSTRALIAN PERSPECTIVE

The author had not experienced Professor Shane's intellectual rigor within most Australian entrepreneurship courses. He transmitted a sense of the field as alive and available to those genuinely seeking to create new knowledge. This compared favourably with the author's experience within the Australian academy where a much more relaxed application of principles revealed from off-shore literature, matched from time to time, with some lively input from Australian entrepreneurial case studies. Only one of the prescribed Seminar readings included Australian research.

Whilst it may reflect Professor Shane's economics background rather than his nationality, the author's Australian experience appeared to more strongly weave elements of social capital within entrepreneurship education and research (for example, Legge & Hindle 2004). Subtle notions of power and trust as determinants or influents on entrepreneurship faded before Professor Shane's factual data.

As Australian entrepreneurial study and research draws heavily on international literature, Australian researchers are necessarily far away both geographically and personally from key centres of international research endeavour – or at least so it seemed to the author. This Seminar placed the doctoral student, for an intensive week, in close dialogue with an international leader in the field and other participants who already work or otherwise interact closely with such leaders. It overcame remoteness, generated excitement, involvement and motivation and invited the question as to what unique aspect of Australian experience could contribute to the field what others internationally could not.

Australia offers elements of interest to the international endeavour. It is a federation with a modern economy but a comparatively recent colonial history. It is a successful western economy operating essentially without political or other corruption. It has a highly educated population, massive natural resources and a resource-based economy with a 'fair go'/ social equity approach. An active articulate Indigenous leadership combines with global immigration waves over the past two hundred years from the Pacific, China, Japan, South East Asia, Afghanistan, UK & Ireland, Europe, Africa, South America and the Middle East. It has a strong, independent judiciary and an ethically-founded, independent legal profession. It has strong international genetics research institutes. These features render it a location for fruitful contribution to cutting edge international entrepreneurial thinking, idea-generation and collaboration.

PEDAGOGY

A number of considerations relevant to the teaching of entrepreneurship arose throughout the week, including the rationale for teaching entrepreneurship, its accuracy, globalisation and integration with evolving research. These merit consideration and further research addressing the following question.

1. Pedagogical Rationale
 - Given the widespread research and knowledge gaps within the field, what can usefully be taught, to whom and in what circumstances?
 - Can entrepreneurship itself be taught? If so, what are entrepreneurship courses actually aiming to teach? If not, why teach? Why do students take such courses?
2. Pedagogical Accuracy
 - Many 'truths universally told' in entrepreneurship courses are in conflict with or a biased extraction of entrepreneurship theory (Shane 2007).
 - How accurate is the teaching and what is omitted? For example, there is general absence of adequate legal teaching, leaving entrepreneurship students with not only a practical deficiency but an incorrect understanding of the theoretical dynamics of entrepreneurship and its interrelationship with regulation, the 'rules of the game' and the power of contracts.
3. Global Pedagogy

Given the global nature of 21st century business as well as the international dynamic of both research and praxis, the teaching of entrepreneurship could, and perhaps should, be a global endeavour.
4. Pedagogy and Research Outcome

Researchers can assist in improving entrepreneurship pedagogy by being alert to teaching and praxis outcomes upon completion of research endeavours.

KEY PROPOSITIONS AND IMPLICATIONS

The workshop was valuable to participants in assisting them to avoid research dead-ends, identify research gaps and match theoretical gaps with areas of interest. For example, the author will use

unique Australian legal and political change to both shed additional light on Schumpeter's model and provide insight into an aspect of Australian entrepreneurship. Other participants whose doctoral work formed a component of a larger research project, left the Seminar with serious critiques having been made, not only to their proposed research, but also to the research methodology of the larger study.

The emphasis on the need to not only research the topic, but also the extent and nature of existing data, prompts attention, during times of narrowing research budgets to locating and 'mining' such data without large spends on new data collection. For example, the author, subsequent to the Seminar, adopted this approach and located extensive untapped, highly relevant information, as well as identifiable and unjustifiable gaps, in Australian Bureau of Statistics reports on census data.

The author would urge Australian doctoral researchers to apply for acceptance into the Seminar. They need to allocate time, not long before attending, to seriously read and review the extensive reading list, and recommended texts so as to be best prepared to participate in the vigorous productive discussions that will occur.

Finally, there is no doubt that Australian researchers could, and should in greater numbers, be participants in the international entrepreneurship research effort. The October 2008 collapse of the US economy several months after the Seminar, reveals that solutions lie globally to economic and entrepreneurial endeavours. Australian distance and difference is an advantage.

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