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Scott A. Shane: Winner of the Global Award for Entrepreneurship Research

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Introduction

The most prestigious award for outstanding research contributions to entrepreneurship is the Global Award for Entrepreneurship Research. From 2009 it replaces the International Award for Entrepreneurship and Small Business Research, introduced in 1996. The system for nomination, evaluation, and selection of award winners is now more structured and transparent and the financial reward of the Prize is being roughly doubled, now comprising 100,000 Euros. The inaugural winner of the Global Award is Scott A. Shane. In this article we discuss and analyze Shane's most important contributions to the field of entrepreneurship.

For decades, scholars have agreed that entrepreneurship is an essential topic for social science. At the same time, the entrepreneurship research field has struggled with legitimacy issues. Common criticisms against entrepreneurship research center on lack of agreement on the domain of the field; lack of methodological rigor, and inability to publish entrepreneurship research in leading disciplinary or mainstream management outlets (Busenitz et al., 2003; Davidsson, 2003). In all these three areas, Shane has made substantial contributions, leading by example. Guided by a clear view of entrepreneurship, which has come to strongly influence scholarly work in this field, Shane is publishing rigorous work in the leading journals.

Shane is also an unusually 'complete' entrepreneurship researcher in terms of having made empirical as well as conceptual and methodological contributions; publishing significant works regarding all major aspects or 'components' of the entrepreneurship phenomenon – the individual[s] (Shane, 1994; Shane & Khurana, 2003; Shane, Locke, & Collins, 2003); the opportunity (Eckhardt & Shane, 2003; Shane, 2001; Shane & Eckhardt, 2003); the organizational context (Shane, 1996b; Shane & Stuart, 2002), the environment

(Shane, 1992, 1996a, 2004), and process issues (Delmar & Shane, 2003, 2004; Shane & Delmar, 2004) – all of the above (usually) as related to various types of outcomes – as well as by studying the entire spectrum from the majority of mundane, imitative start-ups (Delmar & Shane, 2003, 2004) to the 'high end' of research-based, technology-intensive and venture capital-backed ventures (Shane & Cable, 2002); using data from several countries (Shane, 1992; Shane, Kolvereid & Westhead, 1991), and applying qualitative (Shane, 2000a; McDougall, Shane & Oviatt, 1994) as well as a range of quantitative techniques (Eckhardt, Shane & Delmar, 2006; Nicolaou et al., 2008) for data collection and analysis. In the following sections, we describe and analyze Shane's contributions within some specific domains.

The Individual(s) in Entrepreneurship

While also investigating – and arguing for – the importance of other influences, Shane recurrently emphasizes that *entrepreneurship requires human agency* (e.g., Shane, 2003). It is thus not surprising that some of his studies look into the characteristics of individual entrepreneurs. Shane's first contribution in this genre compares corporate venturing champions with non-champions (Shane, 1994). In looking at internal champions rather than independent firm founders Shane introduces some novelty, and in using data from over 4,000 individuals in 68 countries he works with richer data than most contemporaries. The study finds some differences between the two groups, and concludes that these are consistent across cultures.

House, Shane, and Herold (1996) is an early rebuttal to the critique against dispositional (trait) research – in entrepreneurship mostly associated with Gartner (1988; 1989). In a later, likewise conceptual piece Shane sides with Ed Locke in a similar call for re-establishing the role of individual dispositions; this time with a particular focus on entrepreneurship (Shane et al., 2003).

Shane (2000a) – according to citation statistics his single most influential, sole-authored work – is an example of an unusually clever case study design, exploiting a unique research opportunity. Shane uses interviews and archival data about all venture start-up attempts based on one and the same MIT innovation, namely three-dimensional 'printing' ($3DP^{TM}$). He thereby avoids success bias as well as much unobserved heterogeneity as the technology is held constant. Using Austrian Economics and these qualitative data the study convincingly argues several important points regarding entrepreneurial opportunities: their *non-obviousness* (only eight start-up attempts based on a this widely publicized, broadly applicable, novel technology); the prevalence of *non-search* for the opportunities (cf. Kirzner, 1973, regarding 'alertness' and 'surprise'); and the *individual-opportunity nexus* (cf. the next section). Regarding the latter, Shane argues that Team A could never have conceived of or succeeded with Opportunity B, and vice versa across all team-opportunity combinations. In each case the discovery and/or exploitation of the opportunity was clearly linked to some particular prior knowledge represented in the founding team.

It is no exaggeration to claim that this article has had a profound effect on how researchers in this field think about the role of prior experience as influencing preparedness for *specific* opportunities rather than entrepreneurial action in general. The findings also accord with the view that entrepreneurial 'opportunities' as inseparable from qualities of the individuals who pursue them (cf. Dimov, 2004; McMullen & Shepherd, 2006).

Recently, Shane has entered into the novel and controversial territory of the influence of genetic heritage on entrepreneurial behavior. Nicolaou and Shane (2008) outline the four mechanisms by which such effects might work. In Nicolaou et al. (2008) Shane teams up with researchers who have data and experience to conduct twin studies. The analysis of large samples of monozygotic and dizygotic, same sex twins suggest a relatively strong effect of genetics on various measures of entrepreneurship, self-employment being the core measure.

While novel and interesting, this is still preliminary work containing substantial limitations (which are admitted by the authors). Future research will tell whether this line of research represents an important lens through which we can better understand enterprising individuals.

The Entrepreneurial Opportunity

Shane and Venkataraman (2000) pointed out that relative to the examination of the influence of characteristics of individuals (and environments), entrepreneurship researchers had severely neglected the characteristics of the entrepreneurial opportunities these individuals pursue. Although their view has received substantial following, their adoption of Casson's (1982) definition of opportunity has been criticized (Davidsson, 2003; Singh, 2001). Shane and Eckhardt (2003) heed such criticisms and explicitly aim at resolving these issues by making three extensions: broadening; clarifying, and updating. In terms of clarifying the authors make the following re-formulation of the Cassonian definition of 'opportunity' as "[T]hose situations in which new goods, services, raw materials and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships" and argue that "These situations do not need to change the terms of economic exchange to be entrepreneurial opportunities, but only need to have the potential to alter the terms of economic exchange" (p. 165). In further response to criticism of being overly objectivist, the authors explain that 'discovery' refers to *perception* of opportunity; not proof that a 'real' opportunity as defined above has been found (p. 165).

In terms of broadening, the authors elaborate on the inadequacy of the price mechanism in relation to decisions involving new means-ends relationships (as opposed to optimization within known means-ends frameworks). They also suggest additional drivers behind discovery and exploitation of opportunities beyond those discussed by Shane and Venkataraman (2000). Another interesting extension is their discussion of modes of discovery and modes of exploitation (both in independent vs. corporate contexts). Crossing the two highlights four possibilities: a) fully independent start-ups; b) corporate acquisition of independent discoveries; c) spin-out of corporate discoveries, and d) corporate entrepreneurship. This simple framework regarding what types of opportunities are likely to be discovered and exploited in what type of context could be fertile ground for further theorizing and empirical work.

Further extensions of the theorizing on ‘opportunities’ are offered in two central chapters (2-3) of Shane (2003). Here the author seemingly takes another step in the subjective direction by defining ‘opportunity’ as “a situation in which a person can create a new means-ends framework for recombining resources that the entrepreneur *believes* will yield a profit.” In the discussion of Schumpeterian vs. Kirznerian opportunities he suggests that creation is involved in the former type (p. 21). This is a less objectivist position than he had previously purported. However, here as in all his writings Shane maintains that ‘opportunities’ have an external component (e.g., p. 42).

Shane’s (and his collaborators) highlighting of the characteristics of ‘opportunities’ has likely stimulated research on an aspect that was previously sorely under researched relative to the role of characteristics of environments and individuals. However, while Shane’s work on ‘the opportunity’ has led to some progress and inspiration for others, considerable conceptual issues remain unresolved and further conceptual work is needed in this area.

Organizational Context: Franchising

Franchising was the topic of a number of Shane’s articles in 1996-98 (e.g., Shane, 1996b, 1996c, 1998). During this period he also made an explicit attempt to increase the theoretical and empirical interest in this important form of venturing by co-organizing conferences and co-editing two special issues on the topic in *Journal of Business Venturing* (Hoy & Shane, 1998; Shane & Hoy, 1996). He has recently returned to the area with a couple of publications in high prestige outlets (Mitsuhashi, Shane, & Sine, 2008; Shane, Shankar, & Aravindakshan, 2006).

In Shane (1996b) he abstracts from the particulars of franchising and positions its analysis in the broader context of hybrid organizations, i.e., the mix of market and hierarchy solutions. More specifically he derives two broad hypotheses from agency theory: among franchisors, those who emphasize growth through franchising (rather than wholly owned outlets) will grow more and have better survival. In his characteristic manner, he studies these phenomena with methodological sophistication, following a cohort of 138 new franchisors from inception in 1983 and over 10 years. Both hypotheses are supported. In the theoretical discussion Shane notes that franchising as a hybrid organizational form largely overcomes Penrose’s (1959) managerial capacity restriction on growth. He also explains why it is superior to profit sharing as a means for alignment of interests.

Shane (1998) uses a similar sample of 157 franchise systems established in 1981-3 to test nine hypotheses derived from agency theory. The overarching argument is that franchise systems that are structured to economize on agency costs are less likely to fail. With six of the nine hypotheses being empirically supported Shane argues that agency concerns rather than resource constraints govern the behavior of franchisors.

In Shane (1996c) he combines his interests in franchising and international venturing. Again using agency theory as the vantage point he hypothesizes that franchisors who have accumulated more monitoring capability, and who employ a fee arrangement with a larger bond element, will be more prone to expand internationally. Data from the 815 largest franchisors in the US are used for testing these two hypotheses. Both are supported.

In Shane et al. (2006), he again demonstrates his ability to conceptually categorize a phenomenon as a special case of a more general phenomenon, thereby making it possible to benefit from theories and empirical findings regarding other manifestations of the general phenomenon. In this case it is the cooperative nature of franchising that is emphasized. Building on research in entrepreneurship, marketing, organization theory, strategic management and finance the authors develop nine linear and interactive effects hypotheses predicting the size of the franchise system. As usual, the quality of the empirical work is very high. Longitudinal data from close to 1,300 franchise systems established between 1979 and 1996 are used, and the analysis approach is sophisticated. Eight out of the nine hypotheses gain support. Finally, in a very recent article (Mitsuhashi et al., 2008) the authors challenge received 'truths' based on cross-sectional evidence (which is often subject to survivor bias and time-specific idiosyncrasies. However, the data and research question of this contribution largely places it outside of the entrepreneurship domain.

In sum, Shane has helped bringing franchising into the entrepreneurship research discourse. In doing so he has also provided the phenomenon with appropriate theoretical frames and led by example as regards the quality of its empirical study.

Organizational Context: The Venture Capital Relationship

Like franchising, the entrepreneur-venture capitalist dyad can be regarded a hybrid organizational form that is of particular interest to entrepreneurship researchers. Shane has co-authored a small number of influential (or potentially influential) and of high quality articles on this topic as well. Cable and Shane (1997) is a conceptual paper published in *Academy of Management Review.* At the time of its publication, prior research on entrepreneur-venture capitalist relationships typically was either atheoretical or employed an agency theory framework. As the authors note, "the agency perspective is actually a subset of the broader explanation of these relationships provided by the Prisoner's Dilemma approach" (pp. 146-147). Using this approach, the authors draw eclectically on various theoretical perspectives and prior results to develop a set of specific propositions regarding a) what influences the degree of cooperation in the entrepreneur-VC relationship and b) how these influences vary over the stages of the relationship. The influences are organized under the headings *perceived time pressure; perceived payoff from cooperation; information; personal similarity, and transaction procedures* (several of these include sub-categories). This article can be rated as a strong contributor to the theoretical understanding of the complicated entrepreneur-VC relationship. The theorizing in the article is deeper and more sophisticated than in most other works by Shane.

A second article with Daniel Cable (Shane & Cable, 2002) is primarily an example of good research craft. The authors argue that the usual economic explanations of how information asymmetries are dealt with between entrepreneurs and venture capitalists (allocation of contractual rights and staging of investments over time, and risk shifting) are under socialized and incomplete because of a) entrepreneurs' over-optimism and b) the incomplete possibilities of risk shifting for equity investors. The authors use a combination of qualitative (interviews with 50 seed funded technology ventures) and quantitative data (survey of 220 seed stage VCs and business angels). Despite its simplicity, the survey has an unusual and clever design element in that a random half of the sample is asked about a recent proposal they invested in and the other random half one that they considered but refrained from investing in. One aspect of the results – mediation by the entrepreneur's prior (publicly known) reputation – leads to clarification of the precise theoretical mechanisms. According to the authors this suggests direct and indirect ties have value because they provide information and this rather than 'social obligation' is what influences investment decisions.

By and large, Shane represents the conventional view that financial capital has an important and positive role in entrepreneurial endeavors. However, he is well aware that only a tiny minority of new ventures obtain financing from business angels or venture capitalists (Shane, 2008). Moreover, he is also the co-author of one article that forms part of what is still a small literature on how resource abundance – in particular as regards financial resources –

can have detrimental effects (cf., e.g., Mosakowski, 2002). Contrary to their hypothesis regarding availability of venture capital (which is only one of several factors they investigate) Katila and Shane (2005) do *not* find support that reaching first sales would be more likely, and giving up the license less likely, for technology-licensing firms operating in industries that are better provided with venture capital. The authors suggest three possible explanations for this, one of which is that venture capital and product sales are alternative ways to access capital. That is, success in attracting VC may reduce attention to the necessity of attracting and satisfying customers.

In all, Shane's contribution to the literature on the entrepreneur-VC relationship is limited in volume but contains works of high originality and potential influence on future work in the field.

The Environment: International Entrepreneurship

International entrepreneurship was Shane's first area of research. Most of the entries under this heading deal with national differences as an *environment* issue. Several of the works focus on national cultural differences as defined and measured by Hofstede (1980). For example, Shane (1992) hypothesizes and finds support that nations characterized by high individualism and low power distance will have higher rates of inventions per capita (as measured by patents). Shane (1993) is partly overlapping as it suggests that individualism and power distance will have the same effects as suggested above on national innovation, measured as per capita trade marks. He here also adds hypotheses of a positive effect of masculinity and a negative effect of uncertainty avoidance. The results are as expected except for failure to support the effect of 'masculinity'. Both of these studies use data from 33 countries.

McDougall, Shane, and Oviatt (1994) is one of two foundational articles in research on 'international new ventures' (the other being Oviatt and McDougall, 1994). The focus here is on a new phenomenon – new ventures that go international at a very early stage. McDougall et al. (1994) demonstrate the inadequacy of received theories for explaining this phenomenon. Using theoretical analysis and qualitative data the authors argue for the importance of the individual entrepreneurs' knowledge and background. This article is particularly important for theory development and triggering more research on a new and important phenomenon. For Shane, rather than fitting with his other work on national (cultural) differences and their effects this work may be regarded as a precursor to his work regarding the role of individuals' prior knowledge (Shane, 2000a) and the 'individual-opportunity nexus' (Shane & Eckhardt, 2003; Shane & Venkataraman, 2000).

In all, Shane's early work on entrepreneurship and national environments shows originality in the formulation of research questions. Advanced for its time in terms of being more theory-driven and hypothesis testing it also uses larger/better data sets than what was common at the time. It is also more sophisticated than the contemporary norm as regards using control variables; testing interaction effects, etc. As a result he achieved publication in prestigious mainstream journals on some occasions, which was unusual for entrepreneurship research at the time (Busenitz et al., 2003).

Environment: Academic Entrepreneurship

Entrepreneurship in or out of a university setting can be treated as either an environment issue or an issue of organizational context. Either way, this is another area where Shane (and collaborators) has made significant contributions. The book *Academic Entrepreneurship: University Spinoffs and Wealth Creation* (Shane, 2004a) summarizes the work Shane and others and provides a very useful overview of research in this area.

Shane's own work using the patent level version of the longitudinal MIT data base reflects good craftsmanship and also led to original insights (Shane, 2001, 2002). Via a good combination of theoretical and methodological 'tools' these works yield some novel and nonobvious insights into under what circumstances technology commercialization from universities will be more likely; what form it is more likely to take, and what outcomes can be expected. Di Gregorio and Shane (2003) is another example in the same vein. Here, the intention is to explain why some universities generate more start-ups than others. It turns out that the suggested drivers – access to venture capital; relative emphasis on commercially-oriented research; intellectual eminence, and university policies (e.g., on equity holdings) successfully predict variance in commercialization efforts among elite universities but falls short of providing satisfactory explanation for the variance among 'lesser' institutions. Quite possibly this reflects the causal ambiguity (King & Zeithaml, 2001) that makes copying of apparent 'success recipes' so difficult.

Two works focus on the effects of the Bayh-Dole Act, which intended to give universities stronger incentives to commercialize their research. At the time of the first of these works other researchers had concluded – somewhat counter intuitively – that the Act was not responsible for the apparent increase in university commercialization efforts. While Shane (2004b) is careful to point out that his results do not necessarily contradict that aggregate conclusion he shows that the Act appears to have influenced universities to focus more on technologies that lend themselves to licensing. Shane concludes that previous studies may have performed the analysis on too aggregated a level. In Shane and Somaya (2007) the authors conclude that the Bayh-Dole Act may have had unintended effects due to litigation issues, and that this may specifically have limited the spawning of new and small firms from university research.

The Entrepreneurial Process

Shane has made contributions to the study of the new venture creation process in a series of papers in collaboration with Frederic Delmar and based on the Swedish counterpart study of the *Panel Study of Entrepreneurial Dynamics* (PSED; see Gartner, Shaver, Carter, & Reynolds, 2004; Reynolds, 2007). In terms of analysis approach this series of papers represent some of the most sophisticated based on this type of data. Since the PSED represents an empirical research approach that is likely to remain central to entrepreneurship studies this is an important contribution. First, the authors have pioneered the re-organization of the data set from a panel of four interview waves to a data set consisting of monthly spells, based on the answers to a number of ‘time stamped’ (by year and month) ‘gestation activities’ in the survey (cf. Reynolds, 2007). This is important because there is no avoiding that when first captured some of the cases will be very early in the start-up process while others are close to completing it. The re-organization facilitates controlling for this and allows the application of Event History Analysis – a truly longitudinal analysis method – thus making more effective use of these panel data. The Delmar-Shane analyses are comparatively sophisticated also in their use of control variables and treatment of the problematic category of ‘eternal start-ups’; i.e., the substantial share of respondents who claim to be trying to start a firm but who do not seem to be very serious about completing the process (either way).

Substantively, Delmar and Shane (2003) theoretically argue – and find – that business planning activity reduces the risk of disbanding of the start-up, while having a positive effect on product development progress and the completion of other organizing activities. In a second, partly overlapping article, Delmar and Shane (2004) regard the development of a business plan as well as the establishing of a legal entity as ‘legitimating’ behaviors that should be completed early in the process. They argue – and again find – that these activities have a negative effect on disbanding and a positive effect on completing other gestation activities. In a third paper, again partly overlapping, Shane and Delmar (2004) argue specifically that planning activities should precede marketing activities in order for the start-up to avoid discontinuation.

Eckhardt, Shane and Delmar (2006) apply multi-stage selection modeling to the problem of predicting which new ventures receive external funding. Conventionally, such a research question would include some characteristics of the founders and some characteristics of the venture – and possibly some interaction between the two – in the same regression analysis. Logically, however, receiving external funding requires that the founders first actively seek such funding. Therefore, the multi-stage selection approach may be more valid than the alternative of moderated regression (estimation of interaction effects). This approach also acknowledges the process nature of venture funding.

Accordingly, Eckhardt et al. (2006) in the first stage hypothesize that variables reflecting founders' subjective assessment of the future outlook for the venture determine whether external finance will be sought or not, and estimate these relationships. In a second stage they hypothesize (and estimate) that objectively verifiable characteristics of the venture will determine external investors' willingness to fund the venture, *given* that financing is sought. The results come out different but in their particular case not very markedly different from a model where external funding is regressed on both founder perceptions and venture characteristics in a single analysis. However, the analytical approach they use is potentially a very important tool for entrepreneurship more generally because if speaks to the central fact that *entrepreneurship requires human agency* (Shane, 2003). In many cases, other variables can have their effects only if the entrepreneur chooses to let them have their effects. As a model for how to account for this the article by Eckhardt et al. (2006) arguably deserves more attention than it has received so far.

Giving overall direction to entrepreneurship as a field of research

Shane is co-author of the previously mentioned and extremely influential 'conceptual framework' article *The Promise of Entrepreneurship as a Field of Research* (Shane & Venkataraman, 2000, 2001). The central premise of this work is that "For a field of social science to have usefulness, it must have a conceptual framework that explains and predicts phenomena not explained or predicted by conceptual frameworks already in existence in other fields" (p. 217). The authors aim to provide such a framework, stating that the scholarly domain of entrepreneurship research entails "[T]he scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited (Venkataraman, 1997). Consequently the field involves the study of *sources* of opportunities; the *processes* of discovery, evaluation, and exploitation of opportunities; and the set of *individuals* who discover, evaluate, and exploit them" (p. 218). They further point out the following three sets of research questions as especially central: 1) why, when and how opportunities for the creation of goods and services come into existence; 2) why, when and how some people and not others discover and exploit these opportunities; and 3) why, when and how different modes of action are used to exploit entrepreneurial opportunities. In the subsequent dialogue they add that the outcomes – on different levels of analysis – of the exploitation process represent a fourth important set of research questions (Shane & Venkataraman, 2001).

As regards antecedents of the process and its outcomes they emphasize the characteristics of individuals and opportunities as the first-order forces explaining entrepreneurship and hold that environmental forces are second order. They describe their approach as a disequilibrium approach and highlight variations in the nature of opportunities as well as variations across individuals. Further, they point out that entrepreneurship does not require, but can include, the creation of new organizations. Some of the many virtues of this way of delineating entrepreneurship research are the following (cf. Davidsson, 2003):

- It defines the scholarly domain rather than suggesting yet another definition of the societal phenomenon. Making this distinction is in itself a contribution.

- It focuses on the creation of *future* goods and services, thereby directing attention to the problem of *emergence*. This adds to entrepreneurship research an element that is largely missing in established theories in economics and management.
- While retaining a sound interest in individuals it helps making entrepreneurship research less ‘one-legged’ by giving characteristics of ‘opportunities’ equal status and focusing on individuals’ fit with the specific opportunity rather than general characteristics of entrepreneurs.
- It is sufficiently inclusive by considering both discovery and exploitation and by not restricting the age, size or ownership of the organizations in which ‘opportunities’ are pursued. Neither does it require purposefulness. It thereby makes room for luck and serendipity in entrepreneurial processes, and makes the existence of alternative modes of exploitation for given ‘opportunities’ an important research issue.
- Yet, it is sufficiently restrictive by focusing on market related novelty rather than including organizational change *per se,* or creative behavior in any context. It thereby carves out a domain that of manageable scope and with relatively clear boundaries, and which is consistent with Kirzner’s (1973) notion that entrepreneurship is what drives the market process.

After having defined the field and its central research questions the remainder of the conceptual piece elaborates on the possible antecedents of existence, discovery and exploitation of opportunities as well as further highlighting the issue of different modes of exploitation, thus de-coupling entrepreneurship from the creation of new, independent firms (only).

Being used in doctoral training at many universities the sole authored book *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus* (Shane, 2003) is also one of the most influential works in the field in recent years. In the book Shane elaborates and refines the reasoning around the themes in the above-mentioned article. He also provides very comprehensive review of prior empirical research. This review is in itself impressive in a number of ways First, his encyclopaedic mastery of the literature is truly admirable, extending far outside of the realm of narrowly dedicated ‘entrepreneurship journals’. Second, for a US-based author, he shows an unusual awareness of and willingness to cite research conducted in a broad range of countries. Third, the review is ‘weighted by quality’ meaning that he leans more heavily on theory-driven and comprehensive studies. At the same time, there is a clash between Shane’s perspective on entrepreneurship and the empirical evidence he reviews. As described above, his notion of entrepreneurship emphasizes the *interacting* explanations for the *processes* of emergence of new and (at least to some extent) *innovative* economic activity regardless of organizational or ownership context. In sharp contrast, most of the research he cites employs little of a process view; generally assumes additive effects rather than interactions, and uses the *status* of self-employment or the entry of new *independent* businesses – innovative as well as imitative but with the latter in marked majority – as the operationalization of ‘entrepreneurship’. While this incompatibility may make the empirical evidence less convincing as support for his theoretical propositions it also points out the need for more empirical research taking the views developed by Shane and Venkataraman (2000) and Shane (2003) as the vantage point. We would argue that thanks to these contributions, such work has increased dramatically in volume in recent years.

The recent and in its ‘packaging’ less scholarly monograph *The Illusions of Entrepreneurship: The Costly Myths That Entrepreneurs, Investors, and Policy Makers Live By* (Shane, 2008) aims at getting some basic bearings about the phenomenon right and can thus also be regarded a contribution to overall direction of the field. Other explicit contributions to giving direction include his editorship of a comprehensive compilation of foundational works (Shane, 2000b) as well as of the entrepreneurship department of

Management Science and special issues of other journals, and his giving a one-week doctoral seminar twice yearly for participants from around the globe.

Conclusions

As we hope the preceding analysis illustrates, Shane's contribution is extraordinarily broad in scope. This is particularly impressive given that he is only in the middle of his career; Shane's first article appeared less than twenty years ago. It also suggests that he has extraordinary curiosity and hunger for knowledge – essential preconditions for successful scholarship.

While breadth of contribution is indeed impressive, it also makes it more difficult to pinpoint one or a few specifics that we associate with Shane's scholarship. Therefore, we believe that it is fruitful to summarize Shane's contribution to entrepreneurship research as follows. First, he has influenced *what* we view as central aspects of entrepreneurship. Thus, Shane has been a central figure in redirecting the focus on entrepreneurship research. Second, he has influenced *how* we view entrepreneurship. Shane's research is arguably theory driven and it applies and develops theoretical lenses that help us better understand entrepreneurship Third, he has contributed to *how we conduct* entrepreneurship research. Shane has been a forerunner in examining units of analysis that are relevant but difficult to sample; research designs and databases specifically designed for studying entrepreneurial processes; and sophisticated analytical methods. This has contributed to advancing the methodological standard of the field. Summing them up, the contributions are very impressive indeed.

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