ENTREPRENEURSHIP, THINKING, AND ECONOMIC SELF-RELIANCE
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Resubmitted to ESR Review
December 14, 2007
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“The best thing a society can do to increase its prosperity is to wise up.”

(Olson, 1996)

Mancur Olson’s bold assertion speaks directly to a question at the heart of ESR (economic self-reliance): Why do some people succeed economically while others do not? The concept that “… as he thinketh in his heart, so is he” (Proverbs, 23:7), provides foundation logic for the idea that ESR is rooted in thinking; and it also lays the foundation for us to investigate how increasing ESR requires society to “wise up” economically. In our research on entrepreneurial thinking we have investigated thinking-based enablers and disablers of ESR, looking for best practices.

We observe within society, that ESR begins with the success of transactions—the set of exchanges that produce “provisions in store for an uncertain future” (Durant, 1935: 2). We suggest that understanding the underlying structure of economic transactions can support improvements in ESR, just as an understanding of underlying structure of the planetary model of the atom or the double-helix model of DNA supported the advance of inanimate and animate science. In its simplest form, an economic transaction occurs when an individual creates some work that is purchased by other persons. This basic structure of transactions has been represented by the following model:

Thus, for individual “transactors,” ESR can be defined to be: the production of works that others purchase sufficient to enable the accumulation of provisions in store for an uncertain future. By logical extension this model provides an ideal a vantage point from which to identify ESR best practices, because it illustrates in-process-attention to transactions as the basic building blocks of ESR. Accordingly, we report three cases that illustrate self-reliance-enhancing possibilities for improvements in the thinking of individuals about the works they create for other persons with whom they interact.

Enhancing Entrepreneurial Thinking in Individuals

We suggest that the first step to be taken by individuals as potential “transaction creators,” is to study thinking that invokes ESR—the patterns of thinking that, through altering attitudes of
mind, can alter lives (e.g., James, 1890). Such examination of thinking has been termed: metacognition—“thinking about one’s thinking.” The first example we cite concerns efforts to help students reflect productively on the principles and patterns of the value creation process by learning through a metacognitive teaching approach.

The underlying premises for this approach suggest that thinking-about-thinking can be deliberately practiced in an entrepreneurial context, and that such metacognitive thinking will lead to increased value-creation expertise by facilitating self-reflection, understanding, and control of a person’s own entrepreneurial thinking. To substantiate the underlying benefits of this approach, we draw extensively from a study by Mitchell, Gustavsson, Smith, Davidsson and Mitchell (2005). During the years 1997 – 2003, a total of 233 university students enrolled in a four-month metacognitively-based entrepreneurship program (the experimental group). Before and after levels of their value-creation expertise were compared to those of 67 business students, who enrolled in a different entrepreneurship course, but who did not receive the metacognitive approach (the control group). In comparing the value-creation expertise levels of both groups, the authors found that students exposed to this metacognitive experience gained more value-creation expertise than those who were not. Below we explain further.

**Background.** Metacognition includes both an awareness of cognition and an understanding of strategies to change cognitions. There is reason to expect that deliberate interactions between prospective entrepreneurs and actual entrepreneurs can increase novices’ expertise (Mitchell & Cheesteen, 1995). Cognitive psychology theory would suggest that it may be the metacognitive-focus of the interactions between novice prospective entrepreneurs and experts that is important, and that the path to becoming an entrepreneur is not itself special, but is in fact general—rooted in the cognitive systems created by deliberate practice (Charness, Krampe, & Mayer, 1996; Ericsson, 1996).

The teaching approach used for the experimental group provided ways for metacognitive thinking to be deliberately practiced in an entrepreneurial context to increase individual value-creation expertise. This was done by: (1) enabling students’ participation in metacognitively-based experiential exercises, and (2) teaching them how to examine their thinking processes by making their own entrepreneurial “scripts” explicit (i.e., drawing flowcharts of their thinking sequences). The students in the experimental group were coached in the mental-flowcharting process, and then they experienced the scripts-in-action of experts (entrepreneur-mentors) for the purpose of “thinking-about-thinking,” when they interviewed these experts in-depth, and transcribed these interviews to solidify the advice they had received. This process required the students to think metacognitively in developing an understanding of their own thinking and the thinking of their mentor. The question: whether individuals (with a view to improving their understanding of the value creation part of ESR) who engage in metacognitive exercises (in the form of coached flowcharting) would be more likely to gain value-creation expertise than students who do not engage in metacognitive exercises, was then tested.

**Test results.** In this study, value-creation expertise levels were measured to capture the extent to which participants possessed expert arrangements, willingness, and ability scripts at the beginning of the target semester, and at the end. This was done using the script cue recognition-based summed interval scale method introduced by Mitchell (1994) and published in Mitchell et al. (2000). The experimental manipulation of entrepreneurial metacognition used here accords with the three necessary facets of metacognitive self-control theory (Jost, Kruglanski, & Nelson, 1998): (1)  

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1 Please see Morse & Mitchell (2005) for the casebook that resulted.
motivation to implement correctional goals (in the form of course assignments that include a series of scripting (mental flowcharting) exercises to increase one’s awareness of cognition and one’s ability to change these cognitions), (2) conscious awareness of the source of bias and the magnitude of its influence on judgment (through expert input to script content), and (3) time and opportunity to make necessary cognitive adjustments (accomplished by implementing the metacognitive teaching approach over the course of a semester).

The findings (Mitchell, et al. 2005) support the idea that the use of metacognitive elements in the learning experience increased expertise beyond the normal impact of traditional entrepreneurship education. A significant entrepreneurial-thinking increase in the metacognitive experiential group was found. What, then, are the implications of these findings for practice?

If, as was demonstrated: (1) the generation of “value-creation thinking” in the minds of individuals in reality depends upon a process that is generally accessible to any individual, and (2) the specific interventions needed are metacognitive in nature; then it may be that the new-value-creation activities based in the “specialness” paradigm (entrepreneurship awards, business plan competitions, etc.)—which suggest that ESR is only for the special few—may be wrong in the ESR context. Increased ESR may follow increased thinking about entrepreneurial thinking if metacognitive learning (e.g. mental flowcharting based on experiential events) is made available to the majority v. to a minority.

As Sarasvathy (2004) notes, current thought about entrepreneurship—which arguably affects current entrepreneurship policy—may overlook our largest constituency: those individuals who are not entrepreneurs, but want to become entrepreneurs, and just do not know how. By assisting individuals to alter their own thinking through thinking about that thinking, those who seek to expand ESR may assist many more individuals in enhancing their value-creation expertise, thereby allowing people to “alter their lives” by altering their thinking (James, 1890). Both pre- and post-experience examples may include, for instance, thinking flowcharts produced from entrepreneurship internships with active learning components, entrepreneurs’ thinking-flowchart-based post-mortem evaluations of failed ventures, or pre-venture-creation flowcharting (e.g. through the SBDCs (Small Business Development Centers) in most US cities), as metacognitively-based ESR best practices. Accordingly, we suggest that large ESR dividends are possible from small investments in the relatively simple directed-thinking practice offered by thinking-flowchart-based exercises, due to their strong metacognitive impacts.

We next focus on improving ESR through enabling the “works”-creating process – starting a new business.

Better Thinking and Improving Venture Creation Work

People often assume that the “work” of venture-creation is restricted to those who have the advantages of personal and financial resources. To directly challenge this assumption, some colleagues at Syracuse University, conceived of and conducted a “Disabled-veterans Venture Boot Camp.” One of the authors traveled to Syracuse to talk with organizers Mike Morris and Mike Haynie about their experience, and was encouraged by both colleagues to record the audio of the meeting with Professor Haynie, so that readers could get a first-hand feel for this “works-focused” best practice in ESR. In the interview Professor Haynie described the Program: the demographics, its outcome focus, the participants themselves, and the results. The following text in this section is

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2 A summary of mean differences and more extensive confirming results of additional multivariate tests may be obtained from the authors.
quoted directly from this interview, with only slight rearrangements or edits to ensure the flow, or to preserve anonymity:

**Demographics.** “So let me tell you about the demographics of my group . . . . I had students in this first class that their age range was from 22 to 53. I had all four branches of military service. I had Hispanic students, African American students, Caucasian students, students with 4 years of high school, I had one student with 2 masters degrees, some students with college . . . and those students were all equal in the context of this program . . . I mean all equal in terms of how they were thinking about what this program meant to them. It didn’t matter where they came from (or) what their past experiences were. It was almost like hitting a reset switch for all of them.”

**Outcomes.** “There were two outcomes we focused on. One was tools, very traditional. One of the things that this particular group doesn’t have is (entrepreneurial tools) because they were in the military—a lot of them career military folks. They did not have the traditional business toolbox. . . . They did not have the training in how to build a financial statement, marketing plan, business plans, etc. So there was one outcome. For me a much more important outcome was efficacy. It was helping them foster a belief in themselves that they could actually go out there and do this (create a business).”

**Participants.** (The participants, disabled veterans, were individuals who had faced both the trauma of war; and the trauma of returning home disabled.) “But there has to be something that gets them through this, this trauma. It is different for everyone; you know it’s very idiosyncratic. I think (disabled vets) are uniquely attracted to entrepreneurship, to business ownership because of this whole idea of having sole custody of their lives finally . . . (In the military) . . . You have sole custody of nothing. Your life is not your own. They tell you! . . . And you know, that is nothing compared to when you are in a special circumstance like you have been wounded in combat, then you truly have no control over anything. And the whole idea of entrepreneurship to these folks is it is really powerful . . .

So we ended up with a group of students through this selection process that were highly motivated (to start a business). . . . There was a young lady in the class, just to give you a quick example. She was an army sergeant but only 24, and had 127 mm rocket explode eight feet from her. Basically (it) pulverized her entire right side. She was a mechanic in the army. She was a helicopter and Humvee mechanic and you know she spent two years in the hospital. She wants more than anything in the world to open a high-end auto repair shop . . . She is so focused on that goal and interestingly it is that goal which keeps her going. It is the thing that is helping her move past her horrific injury and trauma.”

**Results.** “I think it was, in a sense, an identity transformation. For a very long period of time, these folks (were soldiers); and I think that on some level you have to understand the culture of the military to really get what I am saying but the Marine Corps has a saying: “Once a Marine always a Marine.” All of this was ripped from these people or taken from these folks overnight . . . Martin (name disguised) is 25; he is a Marine. He had an IED (improved explosive device) that blew up his vehicle. Vehicle rolled on top of him and he was pinned under it for six hours before they could get it off of him. Overnight, he was not a Marine anymore. And the kid was lost… The correspondence that I get from him now is in a sense that he has found a new identity. His identity is an entrepreneur—he starts businesses.”

This report suggests that venture-creation work—the “works”-creating process—is not restricted to those who have the advantages of personal and financial resources, and can be significantly improved as a result of gaining venture-creation thinking skills. In this case, once the
veterans were able to see themselves as entrepreneurs (as persons who create works for others), they exercised initiative and created the new “works,” the new businesses they had imagined. This suggests that progress can be made toward ESR through skill-building thinking that enables even those with limited resources to create new business ventures. In practical terms this success further legitimizes and highlights the importance of the outreach function in universities, in NGOs (non-governmental organizations), and in government-supported programs.

**Better Thinking and Improving the Venture Creation Environment**

Finally, as a basic element of ESR, transaction creators focus their work on the “other persons” in the environment. For some, the others-element is very direct: a focus on customers. For others, the work is intended to change the venture creation institutional environment so that multiple others can benefit. Here we report an experience with a Native Think Tank drawn from the Think Tank Report (Nyce, 2003) that one of the authors was invited to join; and of what it set out to do to make a difference in the institutions that affect the ESR environment. The Think-Tank group came together for three years (1999 – 2001) and was motivated by a unifying curiosity: Why are Native communities economically impoverished, and how can these communities find and follow a pathway to prosperity and cultural well-being? To this end, members examined their own experience with on-reserve economies, particularly in the Northwestern region of British Columbia. The group then considered these experiences within a more global context, reviewing the work of authors such as de Soto (2000), Mitchell and Morse (2002) and the results of the Harvard Project on American Indian Economic Development (Cornell & Kalt, 1992). The analysis integrated previously unconnected patterns and systems that are at the core of what ails Native economies and, more importantly, discovered and assembled new ideas for how to change what has gone before to make it possible to achieve the Think-Tank definition of ESR: prosperity and cultural well-being. The approach taken is illustrated in the diagram shown.

**The Think-Tank Approach**

1. Replace Destructive Institutions with Constructive Institutions
2. Obtain Property Rights
3. Enable Entrepreneurial Thinking
4. Increase Mastery; Decrease Dependency

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3 From this point forward, all references to native people, aboriginal people, Native, etc. should be assumed to apply to the Northwestern BC area unless otherwise noted; although it appears to be likely that some of our insights and conclusions will apply more generally.
As these deliberations progressed, the Think-Tank group worked right to left in the diagram: from the desired end point toward the necessary beginning point. Thus, to increase ESR and to decrease dependency, the relationship between prosperity/cultural well-being was first investigated, followed by ways to invoke increases in both the market system and on-reserve entrepreneurship. This led next to the consideration of changes in the economic model that would produce entrepreneurial thinking and the needed changes in capital formation levels that come from viable property rights. Finally, the Think Tank addressed the key governance initiatives that would need to be adopted so that the on-reserve economic climate would be more favorable: to replace the present destructive institutions with constructive ones. The Think Tank prepared a report for the Government of Canada along with proposed legislation, and made the report available to all interested Native Communities so that each could identify the necessary steps that they could take themselves: first, governance institutions, next, property rights, and then entrepreneurial thinking. In this sense, the Think tank acted as an "institutional entrepreneur," an increasingly recognized type of contributor to ESR.

Helpfully, Think-Tank conclusions about a beginning point to achieve ESR (reached independently) were concurrently validated in a study of 72 former colonies throughout the world, which analyzed the relative importance for economic growth of various factors (Easterly & Levine, 2002). This research concluded that the creation of good institutions is the predominant reason for economic success and, hence, that the first challenge for other-focused development economics is to get from bad to good institutions. This is precisely the conclusion that the Think Tank drew in its own deliberations; and this has formed the foundation for the approach recommended (as summarized in the diagram).

Thus, the Native case suggests that venture-creation others include both specific purchasers in a socioeconomic transaction as well as a broader institutionally relevant constituency. Our assertion here is that both sets of “others” in the environment represent important elements of ESR. Indeed, we note that until the institutionally relevant others are considered, attempts to engage specific others are likely to be ineffectual. An understanding of ESR requires both specific thinking about others (e.g., about customers) and general thinking about others (e.g., about the relevant institutions and to whom are they relevant). In the above Native illustration, changing the institutions required changing the underlying thinking, before entrepreneurship could lead to prosperity and cultural well-being. We believe that this approach may well apply as an ESR best practice in many developing economies globally.

Conclusion

It is one thing to be told to “wise up,” and quite another to know how. In this article we have chronicled three instances where better thinking—improving entrepreneurial cognition—has taken place in individual “transaction creators,” in the “works” creation process, and among the “others.” We offer these ideas to the ESR community, organized according to the simplicity of the most basic transaction. Our hunch is that these best-practice examples themselves have an underlying order that explains their effectiveness; and our further research is focused on the identification and testing of the transaction systems that can be the underpinnings of increasingly effective improvements in ESR.

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4 In Canada each distinct tribal group is treated as a “nation” under the Canadian Constitution as interpreted by the Supreme Court of Canada.
REFERENCES


