



When Contingency Is a Resource: Educating Entrepreneurs in the Balkans, the Bronx, and Beyond

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The research project described in this paper began as an inductive field study of entrepreneurship education in two very different settings—a university in war-torn Eastern Croatia and an entrepreneurship program in inner-city high schools in the United States. It evolved into a study of the two unlikely entrepreneurs who founded these education initiatives. Through a detailed counterfactual analysis of the narratives on the programs' founding and evolution, we offer compelling evidence for the role of contingency in the entrepreneurial process. We present an inductive conceptual framework of responses to contingency based on entrepreneurs' beliefs about agency and environment and conclude with implications of this research for entrepreneurship education.

Introduction

There is an old story about a drunk looking for his keys under a lamppost. A passerby sees him stumbling around, and asks, "Is this where you lost your keys?" "No I think I lost them over there in that alleyway," answers the inebriated man. "Then why are you looking here?" "Because this is where the light is."

A recent editors' forum in the *Academy of Management Journal* called on management researchers to carry the torch of the late Sumantra Ghoshal by creating more positive, relevant, and valid research (Rynes, 2007). One of the essays therein (McGahan, 2007) recalls Ghoshal's reliable refrain when mulling over an idea, a paper, or a theory. "Where's the sizzle?" he would ask. "Sizzle" could mean any number of things, from generating counterintuitive insights or demonstrating that fundamental practices are changing to suggesting that a widely used management strategy violates important principles or presenting a specific theory to explain an interesting phenomenon. Most experienced scholars know that the sizzle tends to lurk in dark corners, rather than under the proverbial lamppost.

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In this paper, we tackle one such dark corner that persists in entrepreneurship—namely, what we ought to be teaching about contingencies that form an integral part of the entrepreneurial process. In recent years, interest in developing rigorous research-based curricula in entrepreneurship education has been on the rise. Exemplar attempts include Honig (2004), Edelman, Manolova, and Brush (2008), and Dew, Read, Sarasvathy, and Wiltbank (2009). Each of these and a more detailed literature review together point to the importance of the unexpected in the entrepreneurial process. In other words, the ways in which entrepreneurs respond to contingent events ought to be an area relevant to the study and teaching of entrepreneurship.

We began our study by gathering in-depth data on entrepreneurship education programs in two very different settings, one a university program for entrepreneurship in war-torn Eastern Croatia, the other an entrepreneurship program started in New York City that spread to inner-city high schools across the United States. Our rationale for studying these two organizations was threefold. First, we reasoned that if there is such fervent interest in developing and fostering entrepreneurship in economically challenged environments (Busenitz, Gomez, & Spencer, 2000; Peredo & Chrisman, 2006; Spicer, McDermott, & Kogut, 2000), then perhaps it would be best to study entrepreneurship education programs not in traditional settings (e.g., business schools in the United States) but rather in those more barren environments themselves. By examining the “lived experiences” (Charmaz, 1990; Glaser & Strauss, 1967; Lincoln & Guba, 1985; Locke, 2001) of administrators, students, and other actors integrally involved in the creation and operation of those programs, we could gain greater insight into how to create effective entrepreneurship education programs. In short, we set out in search of the keys where they are, not under the convenient glare of street lights.

Second, we wished to address the long-standing debate about the very premise of entrepreneurship education—namely, that you can and should teach entrepreneurial behavior because it will have a positive effect on society. A variety of scholars have argued for and against this premise. The eminent economic historians William Baumol and Alexander Gerschenkron exemplify the two sides of this debate. We believed that examining entrepreneurship education programs outside the more usual setting of business schools would allow us to move beyond this debate in interesting ways.

Third, beyond the plausibility and need for entrepreneurship education, Baumol and Gerschenkron also highlighted an important theoretical tension with regard to the role of entrepreneurial agency in society, a topic of considerable interest to recent scholarship in institutional entrepreneurship (Battilana, Leca, & Boxenbaum, 2009; Greenwood & Suddaby, 2006; Maguire, Hardy, & Lawrence, 2004). Baumol’s focus on incentives and institutions (“rules of the game”) suggests a more reactive view of entrepreneurial agency than does Gerschenkron’s evidence that entrepreneurship may flourish in unlikely environments. The two completely different environments we study in this paper—namely New York City and Croatia—allowed us to empirically explore the tension in a theoretically meaningful way.

As with any in-depth inductive study, the most interesting findings were not the ones we could have predicted at the time we designed the study. As outlined above, (1) we did learn important lessons about entrepreneurship in economically challenged settings, and (2) we found support for the feasibility and value of teaching entrepreneurship in these settings. Additionally, our examination of (3) the theoretical tension around agency pointed us unexpectedly to a new conceptual framework based on Baumol and Gerschenkron, a framework that can help entrepreneurship educators tackle the role of contingencies in the entrepreneurial process.

In drawing out this inductive finding and synthesizing it into a new framework (which will be laid out later, in Figure 1), we had to find a way to match up the choice of settings with the choice of theorists. We did that by using a novel and rigorous method in analyzing narrative case data, namely counterfactual analysis. Given that Baumol and Gerschenkron used historical data as the basis for their theorizing, our methodological choice of counterfactual analysis seemed particularly appropriate. Counterfactual analysis is a technique of historical analysis in which arguments are rigorously pushed beyond what actually happened to what else could logically have happened. Simon (1998) showed how this method could be a powerful tool in developing useful theories about contingent events.

A counterfactual analysis of the narratives of the two entrepreneurs describing the founding and evolution of the two entrepreneurship education programs provided compelling evidence for the role of contingency in the entrepreneurial process. By “contingency” we mean a sufficient, yet unnecessary, trigger to entrepreneurial action. The educational entrepreneurs we studied used both personal and historical contingencies as valuable inputs into the construction of their ventures. Further analysis showed that it is neither the mere occurrence nor the nature of a contingency itself that was of interest, but rather *what the entrepreneurs did* with the contingencies they confronted.

In sum, the results of our investigation suggest that entrepreneurship may involve *an acquired set of beliefs about human agency and the nature of the environment* that informs entrepreneurs in formulating their responses to contingencies. In particular, by using contingency as a resource to be exploited as opposed to an obstacle to be avoided or a trigger to adapt to or quit, entrepreneurs learn to take a transformative stance toward their environment. This stance enables them to develop strong beliefs in their own agency, thereby suggesting an unexpected resolution to the theoretical tension inherent in Baumol’s institutional story when juxtaposed with Gerschenkron’s agentic narrative. In the concluding section of the paper, we spell out major implications of this resolution for the content of entrepreneurship education.

Need for Content Related to Contingency in Entrepreneurship Education

In the early 1980s, the focus of much of the entrepreneurship education literature was on documenting the increasing prevalence of entrepreneurship programs in universities (Solomon & Fernald, 1991; Vesper & McMullan, 1988), in nonuniversity contexts in the developing world (Brockhaus, 1991), or on rather general suggestions for how to improve the offerings (Hills, 1988). These suggestions were largely based on why and how entrepreneurship education is different than, and shouldn’t be placed within, the functional framework of general management education (McMullan & Long, 1987). As a result of these earlier efforts, the full prevalence and legitimacy of entrepreneurship education has recently been recognized in the entrepreneurship literature Katz (2008).

Over time, the focus shifted to more nuanced analyses of the actual content and process of entrepreneurship education programs (Gartner & Vesper, 1994; Kolvereid, 1996; Solomon & Fernald, 1991; Vesper & Gartner, 1997). The trend to analyze in greater depth both the content and role of entrepreneurship education continued with a number of studies looking at the overall vision for entrepreneurship education (Galloway & Brown, 2002; Gray & Allan, 2002; Jones-Evans, Williams, & Deacon, 2000) and both research preoccupations in the literature (Bechard & Gregoire, 2005) and the overall state of entrepreneurship education in the United States (Solomon, Duffy, & Tarabishy, 2002).

More recently, a number of large-scale quantitative studies have attempted to measure the effect of entrepreneurship education on intentions, attitudes, and perceptions

(DeTienne & Chandler, 2004; Galloway, Anderson, Brown, & Wilson, 2005; Galloway & Brown, 2002; Hindle & Cutting, 2002; and Peterman & Kennedy, 2003 are examples). Galloway et al. explicitly state the serious limitations of quantitative studies in evaluating attitudes toward entrepreneurship and the economic environment while Leitch and Harrison (1999) argue for a more fine-grained examination of exactly *what* is having an impact on students, *why* and *how*. To that end, Oosterbeek, Praag, and Ijsselstein (2010) examined one entrepreneurship education program and found no impact on either entrepreneurial skills or the intention to become an entrepreneur.

A number of recent works take a more rigorous look at course content and tie specific elements of entrepreneurship courses to the larger body of existing theoretical literature in entrepreneurship (DeTienne & Chandler, 2004; Fiet, 2000; Honig, 2004; Shepherd, 2004). For example, Honig addresses a major weakness in entrepreneurship education, namely the over-emphasis on the business plan as the center of our efforts, which may lead us to focus on entrepreneurship as a linear, rather than a contingent, process. Particularly relevant to this discussion, and following Fiet, Honig advocates for a contingency-based approach to business planning, using Sarasvathy's (2001) notion of entrepreneurial effectuation as a theoretical basis for his argument.

Shepherd, following up on an earlier piece on the emotions surrounding entrepreneurial failure (Shepherd, 2003), looks at the role of emotions and failure in entrepreneurship education (Shepherd, 2004). He suggests specific—although untested—pedagogical approaches for introducing the emotions of failure into the classroom. Finally, Edelman et al. (2008) compare start-up activities of nascent entrepreneurs in the Panel Study of Entrepreneurial Dynamics data set to data collected from a sample of entrepreneurship textbooks and finds that while there is some overlap in start-up activities practiced by nascent entrepreneurs and those covered in textbooks, there are many differences to be found. Dew et al. (2009) showed that, whereas both novice and expert entrepreneurs experience contingent events, only experts have learned to *leverage* these.

Each of these articles makes serious attempts at merging theory, practice, and actual observation of what entrepreneurs do and how they behave. They represent a good start at a more rigorous approach to bringing theory and practice together into the entrepreneurial classroom and offer potentially valuable inputs into the content of entrepreneurship education. However, as Sardana and Scott-Kemmis (2010, p. 441) very recently stated: "Despite a proliferation of research in the field of entrepreneurship, our understanding of entrepreneurial learning remains limited. We do not have systematic answers to many key questions." One such key question our data allow us to explore had to do with whether entrepreneurs merely react to contingencies or actively seek to transform them into opportunities.

Enter Baumol and Gerschenkron

We chose economic historians Baumol and Gerschenkron partly because of the theoretical tension and contrast they provide with regard to the role of entrepreneurial agency and contingency, and partly because their perspectives have thus far been largely ignored in our empirical work. As with most dichotomies, the contrast between the two scholars and the theoretical tension it highlights conceals the possibility for a more unifying framework. In Hegelian terms, our dialectical task in this study is to both delineate the contrast and expose the bedrock of synthesis underneath (Fox, 2005, p. 43).¹

1. Also see Hegel's preface to the *Phenomenology of Spirit*, trans. A.V. Miller (Oxford: Clarendon Press, 1977), secs. 50, 51, pp. 29–30.

Table 1

Comparing and Contrasting Baumol and Gerschenkron

	Baumol	Gerschenkron
Period	1922–	1904–1978
Historical studies	History of economics in ancient Rome, China, and medieval Europe	Wrote about the history of Russian and other “backward” economies
What matters most	Rules of the game (institutions matter)	Agency matters
Entrepreneurs: Born or made	Given amount of latent entrepreneurial talent	It is possible for people to choose to become entrepreneurs, or not
Determinants of productive entrepreneurship	Reward systems determine whether entrepreneurial behavior is productive, unproductive, or destructive	Productive entrepreneurship can flourish in spite of institutions that discourage it
View of agency	Reactive view of agency	Proactive view of agency
View of institutions	Institutions as cage—more attuned to mainstream institutional theory	Institutions as created—more attuned to recent work in institutional entrepreneurship

Baumol at least is not unfamiliar to theorists in our field; Gerschenkron, however, is virtually unmentioned. Baumol has devoted much of his life’s work to developing “a place in economic theory for the entrepreneur” (The Economist, 2006, p. 68). However, while his “painstaking efforts” have been credited with making “more room for entrepreneurs in economic theories,” one of his strongest and most persuasive arguments is that there is a *given* amount of latent entrepreneurial talent at any point in time, and it will flourish in those settings where it is allowed to flourish *according to* the “rules of the game,” or the established reward system within a particular society (Baumol, 1990). Depending upon the reward system that prevails, entrepreneurship can appear in one of three forms: productive, unproductive, or destructive.

In contrast, Gerschenkron offered powerful historical examples where what Baumol would have called “productive entrepreneurship” flourished *despite* the prevailing rules of the game. Gerschenkron’s narratives provide strong evidence of how constructive entrepreneurship in society can arise in the absence of incentives or even when there exist incentives against it. Gerschenkron’s work challenges the notion of a “given stock” of entrepreneurs—i.e., special individuals capable of creating and destroying value. Instead, we have an emerging picture here of the possibility that all human beings can choose and learn to be entrepreneurs. See Table 1 for a summary of the contrast between the two theoretical perspectives.

Baumol’s Rules of the Game

William Baumol, a twentieth century economist who is still living and working today in his late eighties, picked up on the conventional Schumpeterian wisdom that entrepreneurs are vital to economic development, that they “are always with us and always play some substantial role” (1990, p. 894). However, for him, the entrepreneur’s role in society is a complex topic; Baumolian entrepreneurs can potentially play a variety of roles, even some that “do not follow the constructive and innovative script that is conventionally attributed to that person. Indeed, at times the entrepreneur may even lead a parasitical existence that is actually damaging to the economy. How the entrepreneur acts at a given time and place depends heavily on the rules of the game—the reward structure in the

economy—that happen to prevail” (p. 894). Note that in Baumolian terms, institutions such as property rights, incentives such as status and wealth that individuals are allowed to accumulate, and rules of the game such as taxes and other regulations pertaining to business, all refer to structural elements outside the control of the entrepreneur. In fact, these structural elements drive the efforts of the entrepreneur down productive, unproductive, or destructive paths. For a more detailed discussion of these concepts both in terms of institutional economics and institutional theory in sociology, see the recent review by Pacheco, York, Dean, and Sarasvathy (2010).

Taking entrepreneurial talent as a latent “given” in society, Baumol added the insight that this latent entrepreneurial capacity would be coaxed into various manifestations (or as he described it, “allocated”) depending on those “rules of the game”:

The notion that our productivity problems reside in the “spirit of entrepreneurship” that waxes and wanes for unexplained reasons is a counsel of despair, for it gives no guidance on how to reawaken that spirit once it has lagged. If that is the task assigned to policy makers, they are destitute: they have no means of knowing how to carry it out. But if what is required is the adjustment of rules of the game to induce a more felicitous allocation of entrepreneurial resources, then the policy maker’s task is less formidable, and it is certainly not hopeless. The prevailing rules that affect the allocation of entrepreneurial activity can be observed, described and with luck, modified and improved. . . . (Baumol, 1990, p. 894)

To make his argument, Baumol showed how the prevailing rules shaped the allocation of entrepreneurial resources in one society after another. He did this by carefully laying out in chronological order the historical narratives of “all the great economic periods and places” from Ancient Rome to medieval China to Dark Age Europe to the Later Middle Ages. In each case, Baumol meticulously shows how corruption was rewarded while constructive effort was futile.

When viewed through the lens of institutional theories, whereas Baumol speaks for the dominant role of institutions in fostering or hindering productive entrepreneurship, Gerschenkron foreshadows more recent developments in institutional entrepreneurship that argue for the entrepreneur as a driving force for change (Gerschenkron, 1962).

Gerschenkron: Entrepreneurship Against the Odds

Alexander Gerschenkron, an economic historian working at Harvard through the 1950s and 1960s—and therefore a contemporary of Joseph Schumpeter—added a unique historical perspective to the established story of entrepreneurship and economic development at the time, namely the simple idea that entrepreneurs are vital to economic development. In Gerschenkron’s richly textured portrayal, entrepreneurs contribute true innovations to their own context, spark profound and even more rapid change in other contexts, and also instigate social action that changes not only the prevailing industrial and economic structures in theirs and other cultures but creates revolutions in cultural and societal norms as well. In short, Gerschenkron provides a number of strong arguments in favor of “making more entrepreneurs” as a way to improving economic development. Like Baumol, he offers countless historical examples, such as from Europe in the second half of the nineteenth century where he discusses the powerful influence that the Credit Mobilier of the brothers Pereire in France had on the entire development of the banking industry throughout nineteenth century Europe. In creating a financial institution that would help to “build thousands of

miles of railroads, drill mines, erect factories, pierce canals, construct ports, and modernize cities,” the Pereire brothers not only had a profound effect on their own immediate environment; they also challenged the entire “old wealth” structure of French banking, and in the process forced their archrivals the Rothschilds into creating an investment bank of their own, a bank devoted not to the “old fashioned banking enterprise,” but rather to the “railroadization and industrialization of the country” (Gershenkron, 1962, p. 13). The new “universal bank” became thereafter the dominant form of banking, and the relationships between banks and industry were exported from the relatively more advanced countries to the relatively more backward countries in Europe.

Gershenkron also observed the particular entrepreneurial subplot of the rapid industrialization of newly emancipated peoples. One of his more detailed examples is of the Russian serfs of the early 1860s.

After the emancipation of serfs in the early sixties of that century, former serfs and sons of former serfs are known to have engaged on an unprecedented scale in various entrepreneurial activities, including, it might be added, the magnificent venture of constructing and operating the merchant fleet on the Volga River. Again, there is little doubt that their activities were at variance with the dominant system of values, which remained determined by the traditional agrarian pattern. The Good Life which God intended for man to lead implied tilling the land, which belonged to God, and receiving the divine blessing of its fruit. The Good Life certainly did not mean craving for riches, did not mean laying up treasure on earth where moth or rust doth corrupt. In innumerable adages, fairy tales, and songs, the wisdom of the folklore insisted upon the unrighteous origin of wealth. And still the activities went on unchecked, great fortunes were amassed, and great entrepreneurial innovations were successfully launched. (Gershenkron, 1962, pp. 59–60)

Here, Gershenkron is making the point that entrepreneurial activities went on *in spite of* the prevailing cultural norms not because of a change in those norms.

Sufficiency Without Necessity: Toward a Resolution of the Theoretical Tension

Baumol’s overarching point is that the society and the rules of the game it establishes are the central factors in the allocation of entrepreneurial resources while Gershenkron is skeptical of any approach to entrepreneurship that rests on what he calls “prerequisites,” whether cultural, financial, or any other. So, is it that Baumol and Gershenkron actually disagree? At first blush, Baumol’s rules of the game argument would seem to be at odds with Gershenkron’s observations on societies where productive entrepreneurship flourished despite prevailing norms that failed to reward it, at least in terms of prestige or status, and despite a lack of “sufficient” financial capital to fund industrial innovation. But perhaps the two economists are not so much in conflict with one another, but rather Baumol’s view is somehow narrower and less inclusive than Gershenkron’s.

Baumol seems to be saying that there are necessary conditions for “productive” entrepreneurship: namely, the rules of the game have to be right for productive entrepreneurship to flourish. Gershenkron indeed leaves the door open for Baumol’s view in the sense that he too recognizes the potential importance of the political and cultural environment—conditions in those realms can make it relatively more difficult or relatively easier for entrepreneurship to flourish. However, Gershenkron also asserts that, in

essence, we cannot know or define the necessary conditions for entrepreneurship, but there are likely lots of different sufficient conditions. Maybe property rights will do the trick, for example, or maybe financial incentives would suffice. Or perhaps it would take nothing at all but the will of one person or a group of people trying something new to get out of a bad situation.

In other words, Gerschenkron has a more pluralistic view of entrepreneurship—he does not preclude people coming up with interventions that would be useful and sufficient but perhaps unnecessary. He also seems to allow for contingency, which Baumol would likely discount because it is unable to be measured or precisely understood. In short, Gerschenkron’s vision of entrepreneurship encompasses the existing “rules of the game,” but much more than that as well. Most significantly, Gerschenkron’s view seems to support the entrepreneur’s vast potential for creating new rules, not just passively accepting the existing order.

A review of this theoretical tension led us to ask the following specific research question in our empirical study: *what particular responses to contingency lead to entrepreneurial actions, and how do those responses play into the development of enduring ventures over time?* The narratives described in this paper allowed us to examine that question in depth. And a counterfactual analysis of the data using Baumol and Gerschenkron as two orthogonal dimensions enabled us to induce a new conceptual framework on contingency that has important implications for entrepreneurship education. We turn next to describing our method followed by the analysis, framework, and implications.

Method

We began data collection and analysis by reviewing the rich literature involving case studies including classic books such as Yin (1994) and Allison and Zelikow (1999), as well as relevant articles published in top management journals (Denis, Lamothe, and Langley, 2001; Ozcan & Eisenhardt, 2009; Townley, 2002). We used Rindova and Kotha (2001) as a particular exemplar since they had used a two-case format involving responses to changing environments. Our experiences collecting and analyzing data from the two cases affirmed Siggelkow’s (2007, p. 23) conclusion:

To summarize, regardless of how cases are eventually used, research involving case data can usually get much closer to theoretical constructs and provide a much more persuasive argument about causal forces than broad empirical research can.

This sustained our energies as our study progressed in two stages over a period of 6 years. One of the authors conducted a Stage One pilot study of the Croatian program from 2000 to 2003, visiting the University of Osijek Graduate Program for Entrepreneurship eight times over this period. The same author conducted a Stage Two research phase at the National Foundation for Teaching Entrepreneurship from 2004 to 2006. In both cases, we aimed to gain insight into the processes—or the “lived experiences” of participants in these two entrepreneurship education programs and not merely to gain a quantitative understanding of outcomes (Patton, 1990). In the next two subsections, we describe each research setting and the data collection process in more detail.

Data Collection: The Graduate Program for Entrepreneurship at the University of Osijek

The Graduate Program for Entrepreneurship at the University of Osijek in Eastern Croatia was founded by Dr. Slavica Singer, a professor of Economics at the University. Dr.

Singer launched the Western-style, 2-year MBA program as a response to the physical and emotional devastation the Balkan wars had caused in her region. A case study was conducted on the organization during eight field trips to the university over a 3-year period. By “case study,” we mean both a methodological choice and a choice of the particular object or “bounded system” to be studied (Locke, 2001; Stake, 1994). A case study methodology was well suited to our efforts in building theory in an area where little or no theory exists (Yin, 1994). In addition, this case is both unique—in that it was the only program of its type in the Balkan region—and instrumental—in that it had potential to provide insight into, and advance theory about, how to support the development of entrepreneurship education programs in similarly challenged environments (Stake).

Qualitative methods typically consist of three types of data collection: open-ended interviews, direct observation, and written documents (Patton, 1990). We employed all these of these types of data collection in this study, although because little was written in the press, in academia, or elsewhere on the development and implementation of the Croatian graduate program, we relied heavily on primary research. Uncovering the story of how the program developed involved conducting extensive open-ended interviews with Dr. Singer, the program founder, with whom the author conducted some 40 hours of total interviews, informal interviews with some 20 students as they progressed through the program, and multiple interviews with Piotr Korynski, the Director of Economic Development at the Open Society Institute of the Soros Foundation, which financed the start-up phase of the program. In addition, the author had access to the limited reports, memos, articles, and stories written about the program in regional media, and to a previous case study written on Singer, and the program, by one of her former students.

The author also made direct observations of students, instructors, and administrators during visits to Osijek over the course of 2 years in working with the graduate program as an instructor and recorded observations of these interactions. For the purposes of the current analysis, only the interviews and other materials pertaining to the founding of the program have been used. Interviews were all conducted face to face (with the exception of the interviews with Piotr Korynski of the Soros Foundation which were conducted on the telephone) and were taped and transcribed according to the procedure described in Patton (1990). Data coding and analysis are described in the subsequent section.

Data Collection: The National Foundation for Teaching Entrepreneurship

After conducting the Stage One pilot study in Croatia and seeing preliminary evidence for the potential of entrepreneurship education in economically challenged environments, we wanted to conduct a more in-depth study on the content and process of a transforming entrepreneurship education program in another similarly challenged environment. We had heard about the National Foundation for Teaching Entrepreneurship (NFTE), which was founded in 1988 by Steve Mariotti after he experienced a traumatic mugging at the hands of a group of troubled young men. After that experience, Mariotti had chosen to become a teacher in a very rough inner-city high school in New York City. NFTE was borne of his desire to make something positive out of an unfortunate event, to teach his troubled students something that would capture their attention. The organization was intriguing, both for its unique beginnings and also for its large size and broad geographic spread.

In addition, we became particularly interested in studying the content of the NFTE program after learning that NFTE had been the subject of a number of quantitative empirical studies, most notably one conducted at the Harvard Graduate School of Education in 2001 to 2002 with NFTE students in the New England area (Nakkula, 2002). That study showed a sharp increase in occupational aspirations, college interests, and

independent reading in NFTE students, pretest and posttest as compared to a control group. The findings clearly pointed to the overall potential of the NFTE program. We reasoned that an in-depth qualitative investigation would help us to explain what it is about the NFTE program specifically that leads students to those brighter visions for their future.

The same types of data collection—namely direct observation, open-ended interviews, and written materials—were employed in this study as in the study of the Croatian graduate program. In the study, however, we had broader and longer access to the organization (which is also much larger than the Croatian program and geographically disbursed), and therefore many more students, instructors, and administrators were interviewed, and a great deal more data was collected on the program. These data included articles from public sources, books on the NFTE program, letters, and diary entries of students and recorded direct observation. However, again for the purposes of the analysis in this paper, as with the Croatia project, we present only that part of the data pertaining to the establishment of the program (i.e., the founding process), not its content post-founding. This material consisted of written materials on the program founding, a book on NFTE with a foreword by Steve Mariotti and multiple interviews over about 10 hours with Mariotti himself. We now turn to a description of how we summarized the data and analyzed it leading to the construction of the conceptual framework presented in Figure 1.

Data Summary and Analysis

Following the injunction of Rindova and Kotha (2001), we first present the early history of each venture as a textual summary of all the data we collected including interviews, materials from published sources, and personal observations. Thereafter, we describe and present the results of counterfactual analysis of the key events in the formation of the two education programs.

In building the textual summary, we assembled materials from all sources into chronological order. We then triangulated the information in the interviews with information from published data. We double-checked both of these with our own notes and observations to ensure that there were no conflicting or missing data. Once one author completed the textual narratives, the other examined the same with a view to identifying gaps and unanswered questions. Then we went back to the sources and collected targeted information that supplemented the textual narratives. By cycling through this procedure several times, we completed the narratives to the satisfaction of both authors. Then we began identifying key events simply by reviewing the cases we had written and listed them chronologically. We then double-checked the chronology by reexamining both interviews and published data to ensure we had not missed any.

There were only three things we had to extract from the data: (1) the chronology of events, (2) the list of contingent events common across the two cases, and (3) narratives describing the common contingent events and responses to each. The data spoke rather clearly so it was easy to find reliable coherence on the comparable common event lists in Table 2.

Our approach was inductive in the sense that it was the one-to-one correspondence of the sequence of events in the two stories that led us to focus our analysis on the role of contingency in greater depth. That in turn led us to re-read Baumol and Gerschenkron in terms of their implied stances toward agency and environment in the face of contingencies in the entrepreneurial process. Finally, we went back to the data and examined each event in terms of both the actual response of the entrepreneur and a counterfactual

Table 2

Common Contingent Events in the Two Entrepreneurship Programs

Contingent events	Steve Mariotti and NFTE	Slavica Singer and the University of Osijek
Background	MBA, GE Consulting, sub-contractor etc.	Professor, working on a survey
Initial contingency	The mugging	The war
Aftermath: Problems	Traumas and flashbacks	Big companies leave
Initial solution	Therapeutic teaching	Therapeutic reading
Early steps	Started teaching in an inner-city school	Started talking to humanitarian aid agencies
New contingencies	Problems in the classroom—almost hopeless	Rejections—“Too early”—almost hopeless
Leveraging contingencies into a new vision	Need to teach entrepreneurship, not standard content: Develop content for teaching entrepreneurship in inner-city schools	Need to think in terms of development aid and need to act entrepreneurially: Build a business school that teaches entrepreneurship
Problems executing the new vision	“Subterfuge” while teaching in several inner city schools while continuing to evolve the curriculum and structure for the vision	Problems in finding funding—while continuing to evolve content and structure for a new business school
A productive contingency	Principal in South Bronx	Korynski and the Soros foundation

analysis of what other responses each could have had to the particular set of contingencies encountered in the entrepreneurial process. The entire research process we lived through is captured succinctly in Eisenhardt and Graebner’s (2007, p. 25) articulation of good case-study research: “The theory-building process occurs via recursive cycling among the case data, emerging theory, and later, extant literature.”

Counterfactual Analysis

Counterfactual analysis is a technique of historical analysis in which the scholar examines not only what actually happened but also what else could have happened as a way of developing general theories that better explain contingent events. As Herbert Simon explained in a methodological piece entitled *Economics as a Historical Science*, in counterfactual analysis, “a discrete change is introduced in order to compare two different historical sequences, one real, the other hypothetical” (1998, p. 244). In each of three contingent events in the two histories of NFTE and Croatia Business School (CBS), we will examine hypothetical responses based on extant theories as a way to analyze the actual response. Putting together these hypothetical responses with the actual ones will then allow us to induce a comprehensive conceptual framework of possible responses to contingency that can form a basis for future research.

In accordance with best practices in qualitative research, we provide raw quotes from the interviews and from external sources in support of our claims (Locke & Golden-Biddle, 2007). These appear in Table 3. In addition, there is a complete narrative summary of each case history in the Appendix at the end of this paper.

In Table 2, we presented the common contingent events that both entrepreneurs/ventures underwent in creating the two different programs teaching entrepreneurship. Then in Table 3, we provide at least one quote from the raw data supporting each contingent event listed in Table 2. The contrasts between the two cases are particularly interesting in light of the striking similarities. For example, Steve Mariotti, founder of NFTE was an entrepreneur; Dr. Slavica Singer was an academic with no prior

Table 3

Narratives Associated with the Common Contingent Events

Contingent events	Steve Mariotti and NFTE	Slavica Singer and Croatia Business School
Background	<p>“At Ford, I was near the bottom of the corporate hierarchy. In New York, I was making less money, but I was my own boss. It didn’t matter that I didn’t have high capitalization or thousands of employees. Being an independent businessperson had an immediate beneficial effect on my self-esteem and outlook . . . People would ship the stuff ahead—everything from shrimp, tuna and caviar, to shoes and nuts, and even snakeskins. I tried to sell thirty or forty products and was only successful and profitable on about three or four. It was very difficult to get the cost right, especially because I was dealing with second tier firms, not the big companies. Even though there was only about one product per thousand that you could make money on, it was a ton of fun—you don’t know the industry. You are starting from scratch. You call people, you try to sell the stuff.”</p>	<p>“My own background is that I . . . most of my life I spent in academia, but I was never actually only professor, so always was interested in real life problems. But also having experience with economy in former Yugoslavia where small businesses, where individual initiatives were neglected by the systems; and not only by economic systems . . . at the beginning of the 90’s, we started to do some surveys among businesspeople in Croatia trying to get information [on] what they consider as needs for training and education, what they feel that they lacked in their education and what they feel was needed to improve their businesses . . . it was just in the beginning of the war so we actually try to make the research but then the war started in 1991, so we actually could not make the whole research.”</p>
Initial contingency	<p>“One evening in 1981, while jogging on the Lower East Side, I was approached by a group of kids who demanded ten dollars. I was wearing a jogging suit and was carrying very little money. They roughed me up and humiliated me . . .”</p>	<p>“It was physically impossible to function because we were being shelled every day by the Serbian Army. Osijek is located in Eastern Croatia—we were on the edge of occupied territory, actually some suburbs of Osijek were occupied . . . by [the] Yugoslav army at that time . . . and actually it was impossible to function in just a normal way. For example, some foreign trucks delivering humanitarian aid were not allowed to come to Osijek; they stayed in Hungary because insurance did not want to cover the risk of coming here.”</p>
Aftermath: Problems	<p>“Becoming an urban statistic was a traumatic experience. My constant and painful flashbacks of the experience soon became more painful than the experience itself. The memories took on a life of their own and I knew I had a serious problem.”</p>	<p>“. . . so many companies were physically actually destroyed or shelled . . . all big companies actually ceased to function during the war and we actually saw that people are suffering because they don’t have jobs and it would be extremely difficult to re-start those big companies again.”</p>
Initial solution	<p>“My strategy was to confront my fears directly. I decided to become a public school teacher in neighborhoods like the one that the young people who had mugged me called home. I wanted to be assigned to the ‘worst’ areas, to test myself. . . . I was assigned to Boys and Girls High School in the Bedford-Stuyvesant area of Brooklyn . . . although the school had only opened in 1976 and had cost \$30 million to construct, Boys and Girls had quickly established itself as the worst school in the New York City public school system, and perhaps in the country.”</p>	<p>“At the beginning of the 90’s, we started to do some surveys among businesspeople in Croatia trying to get information which what they consider as needs for training and education. It was just at the beginning of the war so we actually tried to make the research but then the war started in 1991 . . . and then, because of the war, we just started to read because we just did not have opportunity. For example, our university was evacuated so we did not have lectures and exams in 1991 and 1992 and professors actually who stayed here in Osijek, we just tried to read. So I never read actually so much in my life as [in] those two years. This small group of my colleagues and me, we actually tried to understand what is entrepreneurship. So we started with Schumpeter and all others talking about innovation and entrepreneurship; so that was some kind of developing the basis of understanding.</p>

Table 3

Continued

Contingent events	Steve Mariotti and NFTE	Slavica Singer and Croatia Business School
Early steps	<p>“Within an hour of arriving at the school, I began to view the kids with less animosity and fear. I also knew that I would like teaching; I was sure I had found a vocation.”</p>	<p>“I thought we should do something to make possible for people who would lose or who had already lost their jobs to start something on their own. So actually I started to talk to many foreign humanitarian organizations about starting some economic development program.”</p>
New contingencies	<p>“I began to lose control on almost a daily basis. One student actually set fire to the back of another’s coat—the student with the coat was as astonished as I was. In a rage, I ordered the arsonist out of the class, and he was expelled the same day. On another occasion, I was locked out of my eighth-period class. Finally, one of the girls took pity on me and opened the door, just as I was going to admit total defeat and find a security guard. In each of my three remedial classes, there was a group of six or seven kids whose behavior was so disruptive that I had to stop the class every five minutes or so to get them to quiet down. In my third-period class, I once threw all the boys out.”</p>	<p>“. . . but all of the humanitarian organizations, actually, refused to talk about this saying that it’s too early. So it’s the beginning of . . . it was 1992, 1993 . . . [they] thought that the time is for humanitarian aid, not for development aid. But unfortunately, this part of Croatia actually stayed in such a ‘neither war nor peace’ situation until January 1998. So it was absolutely impossible just to wait without doing something.”</p>
Leveraging contingencies into a new vision	<p>“I took [some of my students] out to dinner and asked them why they had acted so badly in class. They said my class was boring, that I had nothing to teach them. Didn’t anything I’d said in class interest them? I asked. One fellow spoke up; I had caught their attention when I had discussed my import-export business. He rattled off various figures I’d mentioned in class, calculated my profit margin, and concluded that my business was doing well. I was dazzled to find such business smarts in a student the public schools had labeled borderline retarded. This was my first inkling that something was wrong not only with my teaching, but also with the standard remedial curriculum . . . I didn’t know it at the time, but this incident . . . pointed me to my real vocation—teaching entrepreneurship to inner-city kids.”</p>	<p>“[Our] immediate motivation to make the university program [for entrepreneurship] was when we saw that all big companies actually ceased to function during the war and we actually saw that people are suffering because they don’t have jobs and it would be extremely difficult to re-start those big companies again. [But] for us it was a challenge actually to really to first prepare ourselves as lecturers to teach something else. We had actually from the mid-1970’s courses on marketing, financial management, accounting, of course; but we did not have anything like entrepreneurship, or anything related to needs and problems of managing small businesses. And, of course, we did not have anything about how to start a small business. So those areas were actually the new territory for us in some ways, so we had actually to learn more about that—how to start the business, how to provide resources for the business, how to run the business and how to deal actually with transition from small business to growing or fast-growing business. So all of those kinds of knowledge and skills we did not have.”</p>

Table 3

Continued

Contingent events	Steve Mariotti and NFTE	Slavica Singer and Croatia Business School
Problems executing the new vision	<p>“I have endless conversations about ‘where does this fit in and won’t it distract from math, reading, writing’. Meanwhile, I am in my office and down the hallway I hear ‘f*** you, mother f*****, f** you, blah blah blah.’ There’s kids swearing down the hall and people are trying to pretend that’s not going on. Forty percent of the classes are completely unmanageable and they’re pretending to teach math . . . Part of the school system [is] in a fantasy. In the series of schools I was subsequently assigned to, spreading my ‘entrepreneurial message’ began to require more and more subterfuge. I was teaching the kids the subjects I was supposed to teach, but it took all my ingenuity to use an entrepreneurial or business context—which was the only way to keep up their interest.”</p>	<p>“First, of course, I tried with humanitarian organizations [to get start-up funding for my entrepreneurship program] but they turned me down. I started with a British know-how fund. I applied for financial support for this program but they said . . . first of all . . . that it was too early and then they said that it is not appropriate to start with graduate program, that it would be more logical to start with an undergraduate program. But we had to start with a graduate program to actually form a group of young people willing to enter an academic career to be able to teach later on in undergraduate programs. And also some people who were already trying to operate businesses but who wanted to learn more about how to do that. We also talked to USAID, we talked to some other humanitarian organizations . . . but they were not interested in economic development at that time. So most of them said just wait a little bit. But the war started here in 1991 and UN troops left in 1998 so it has been almost a decade. We just could not wait. It was like waiting for Godot. So I thought that it’s better if we do something by ourselves.”</p>
A productive contingency	<p>“It wasn’t until I was assigned to Jane Addams Vocational High School, in the ‘Fort Apache’ Section of the South Bronx, that a principal, Pat Black, understood the potential of what I was talking about. She gave me permission to teach a class in entrepreneurship. It was an immediate success and soon became the South Bronx Entrepreneurial Project.”</p>	<p>“So we collected information about entrepreneurship programs around the world—mostly in the States—and I had luck actually to meet the person who had a good ear for listening to us and it was Piotr Korynski, the Director of Economic Development Program at the Soros Foundation in New York and it was just click. And suddenly, things started to roll.”</p>

entrepreneurial experience. Both common sense and prior research would suggest that Steve Mariotti would therefore be more likely to have a proactive stance toward agency (Gupta & Bhawe, 2007). Dr. Singer, on the other hand, might perhaps be more likely to take on the role of institutional entrepreneur but only in reaction to external “shocks” that would jolt her out of inertia (Garud, Hardy, & Maguire, 2002). The efficacy of these propositions is attested to by the particular contingencies that led to the formation the two ventures these two started. One started in response to a personal contingency (the mugging in New York City), the other in response to a historical one (the Croatian war).

Contingent Event Leading to the Founding of NFTE

One afternoon in September 1981 in broad daylight on the Lower East Side of Manhattan, a group of six teenagers surrounded Steve Mariotti and made him give up the \$10 bill he was carrying. They slapped him, knocked him down, and threatened to throw him into the East River.

Counterfactual Analysis of Response. People react to such events in many different ways. Most will go through some amount of mental trauma, just as Mariotti did. But some

might decide never to venture into areas like the Bronx; they might even move out of the city altogether to safer small towns. Others, especially if moving was not a option, might decide to protect themselves against future contingencies by avoiding going out alone or by purchasing a gun or a taser. They might also work toward better policing of neighborhoods and urge political action toward eradicating crime through tighter regulations. Few would take it upon themselves to get to the root cause of the problem and try to change the system from within.

As the narrative summary in the Appendix shows, Mariotti chose to “confront” his fears in order to overcome them, and as a first step, decided to become a high school teacher in a tough neighborhood. Even though he believed the attempt would be short-lived and purely for therapeutic purposes, he was soon sucked in by the possibilities of using entrepreneurship itself as a way to solve a much larger contingency, namely that of the chaos that is an inner city school system. Note that it was the challenge of the problem that got him started and not any prior belief or desire in school reform. In fact, as quotes from Mariotti show, he was explicitly contemptuous of any reformatory zeal particularly in the context of high school reform. Yet, by actually effecting a change through an impromptu class session on making money, he realized the power of his own agency and jumped right into the new venture.

Contingent Event Leading to the Founding of CBS

In 1991, Serbian troops attacked the Croatian town of Osijek, after leveling Vukovar, only a few kilometers away. Although it was difficult to separate the effects of the war from the general influence of economic transition throughout the entire region (Kovačević & Obadić, 2001), by the early 1990s, Croatia was left with hundreds of thousands of refugees, displaced persons, occupied territory, destroyed manufacturing facilities, and severely reduced market size. A beloved and prominent figure in the university and in the town of Osijek, Dr. Slavica Singer felt helpless in the face of the destruction being visited upon her community.

Counterfactual Analysis of Response. Again several responses are possible in the face of such a devastating contingency. Perhaps, the most normal one would be that of trying to leave the country. Someone of Dr. Singer’s abilities and reputation could easily have found opportunities for relocation to safer regions of the world. At the other extreme, one can also imagine more heroic responses such as engaging in efforts to end the war, reconcile ethnic factions, and/or become a spokesperson for humanitarian activities. Dr. Singer chose instead to continue what she was doing, namely, surveying local business people about their training and educational needs. This led her to seek to understand entrepreneurship—the only recourse after established corporations fled the scene. Teaching entrepreneurship was a challenge, “new territory” to use Singer’s own words.

As the narrative in the Appendix shows, Dr. Singer began knocking on several doors to find funding: humanitarian and economic development agencies, private and public foundations, and so on.

Negative Contingencies on the Entrepreneurial Path

Both Mariotti and Singer encountered a variety of rejections and challenges as they worked to develop their educational ventures. Mariotti had to use subterfuge—teaching entrepreneurship as part of other courses—even as he developed a working curriculum

that could become the full-blown heart of NFTE down the road. Singer continued to learn the basics of entrepreneurship teaching while waiting for the war-torn environment to stabilize. Eventually both emerged out of the system to don the full mantle of entrepreneurship. Each created curricula, infrastructure, and funding models that helped sustain a viable enterprise at the heart of which entrepreneurship education became a powerful driver of environmental change.

Counterfactual Analysis of Negative Contingencies. Each of the numerous rejections and resistance that Mariotti and Singer encountered on their path could have been triggers for abdicating their endeavors. It was also possible to protest and confront these in ways other than quiet persistence and continuing reshaping of bits and pieces of the curricular model. Alternately, they could have continued knocking on doors to convince and “sell” existing power blocs within the system to adopt their ideas. Instead, both chose to transform existing structures by leveraging each negative contingency—to learn new ways to get things done, to craft better processes and pathways to funding and logistics, to improve the content and format of the curriculum, and to acquire unique skills at wielding entrepreneurship education as a method of personal and institutional change.

Finally, a Positive Contingency: A Transformative Stakeholder

Eventually, each entrepreneur found a stakeholder who helped them to transform their fledgling ventures into viable components of the educational system. In the process, they each transformed the system itself in significant ways. In the NFTE case, this happened through the principal in South Bronx. In the case of CBS, Singer “clicked” with an important director of the Soros Foundation.

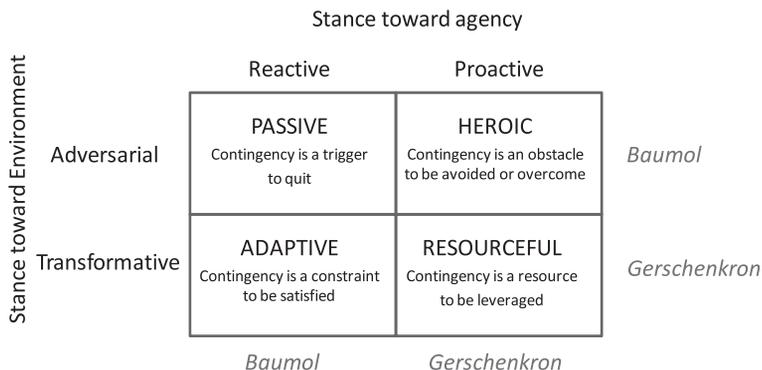
Counterfactual Analysis of the Positive Contingency. There are a variety of ways to think about the “click” (to use Singer’s evocative term) that led to the two ventures actually coming to be. Maybe it was a matter of inevitability, a simple matter of the timing being right. Or it could be the charismatic and heroic personalities of the entrepreneur that did it, the never-say-die spirit that eventually triumphs in spite of circumstances to the contrary. We are persuaded that the data are capable of a more useful interpretation that brings agency and environment together in a rather interesting way. We see the entrepreneurial journeys of these two ventures as a matter of their founders developing a resourceful stance toward contingency and learning to use their agency as a way to transform the environment. Small, local changes, implemented through creative actions and processes rather than sweeping heroism or abject acquiescence to forces seen as essentially outside one’s control.

In Figure 1, we summarize the results of the counterfactual analyses above into a conceptual framework of possible responses to contingencies that occur in the entrepreneurial process. In terms of our data, we can see Mariotti (the entrepreneur) beginning with a heroic response to the negative personal contingency he encountered, while Singer (the academic) began with an adaptive response to her historical one. This is very much in keeping with extant literature. However, as they continued on their entrepreneurial paths, both moved toward the bottom right quadrant of resourceful responses that eventually led them to a positive contingency and enabled the creation of a viable venture that is even now helping transform the environments in which they encountered the original negative contingencies.

Earlier, we quoted from Siggelkow’s (2007) inspiring and thought-provoking essay on the compelling role of case study research in fleshing out theoretical constructs of real

Figure 1

Dealing with Contingency: Conceptual Framework Induced from Counterfactual Analysis



value to an in-depth understanding of important phenomena. Here, we turn to the second half of Siggelkow’s quoted paragraph that provides a more cautionary note:

However, one will not be able to say, “You should believe my theory that A leads to B, because I show you an example here.” That is asking too much of a single case study, or even of a few cases. The theory should stand on its own feet. (Siggelkow, 2007, p. 23)

Hence, we now elaborate on Figure 1 with a view to helping it stand on its own theoretical feet. The two dimensions of interest in Figure 1 consist in the differing stances that human beings can take toward the environment in which they find themselves and the efficacy of their own agency in dealing with it. Individuals can see either a reactive or proactive role for agency. They can also perceive the environment as mostly exogenous to their agency and therefore adversarial in nature. Or they can see it as endogenous to a greater or lesser degree. These dimensions are also theoretically validated in the debates about the role of agency in sociology for example (Berger & Luckmann, 1966; Bourdieu, 1977; Giddens, 1984) as well as in recent arguments in entrepreneurship and management research about the extent to which environments may be endogenous to human action (Abner & Levinthal, 2004; Zucker, 1988).

Traditionally, entrepreneurship research has taken its inspiration from economists such as Schumpeter and Kirzner. Both Schumpeterian and Kirznerian theories such as Bower and Christensen’s disruptive technologies (Bower & Christensen, 1995) or Shane’s opportunity discovery (Shane, 2000) suggest a heroic approach to entrepreneurial contingency. Methodological individualism is a typical hallmark of such theories and the stance toward agency is assumed to be proactive. All the same, the environment is assumed to be largely *outside the control* of the individual entrepreneur. Christensen, for example, talks about technological trajectories as though they are for the most part inevitable, and Shane assumes entrepreneurs can only discover opportunities. The opportunities themselves are created through structural—such as demographic, technological, and regulatory—changes in the environment.

As we mentioned in the historical section above where we discuss the tension between Baumol and Gerschenkron, there has been a recent surge in entrepreneurship theories

inspired by sociological approaches, particularly institutional theory. Institutional theorists and their evolutionary counterparts mostly tend to advocate an adaptive response to contingency. At the same time, they do not provide a role of any substance for agency *per se*. Individual initiative primarily takes the form of creating random variations within institutional constraints, and macro selection forces act upon those variations to determine what transformations will actually occur in the structure of the environment. Aldrich (1990, 1999) is a case in point in this regard.

But as entrepreneurship research progresses, more nuanced approaches are beginning to emerge that move us beyond the top right and bottom left quadrant of Figure 1 into the bottom right. These approaches seek to thread together agency and structure in more interesting ways. For example, Baker and Nelson (2005) introduced the notion of “bricolage” to show how entrepreneurs use readily available means at hand to create innovation. This is a variation on Schumpeter’s new combinations that allows a larger role for agency within a more traditional institution-theoretic framework derived from sociology. There is also a relatively new stream of research based on the notion of “robust action” (Eccles, Nohria, & Berkley, 1992; Leifer, 1991; Padgett & Ansell, 1993) that has the potential to build bridges between institution-theoretic approaches and a more relevant role for entrepreneurial agency. As argued in Sarasvathy, Dew, and Ventresca (2008), robust action also coheres with recent empirical findings about the use of effectual logic by expert entrepreneurs (Read, Dew, Sarsavathy, & Wiltbank, 2009; Sarasvathy, 2008, 2009).

All of these new developments arise either within entrepreneurship itself or are inspired by findings within entrepreneurship that cannot easily be explained by more traditional economic or sociological theories. It would be interesting to see what specific hypotheses may be generated from each of these with regard to responses to entrepreneurial contingency. And in light of the exponential growth of entrepreneurship education in business schools around the world, perhaps the more important and urgent question might be: what *should* constitute a proper response to contingency? Or to be more precise, what kinds of responses work—how and when and why? What should we be teaching potential entrepreneurs about how to respond to contingencies? We hope that the inductive framework we have developed here will be a useful first step in investigating these practically relevant and theoretically interesting questions.

Discussion: Implications for Entrepreneurship Education

We started this paper by seeking to answer the question, “What should we be teaching about contingency in the entrepreneurial process?” The lived experiences expressed in the narratives of two entrepreneurs who created highly successful entrepreneurship education programs in challenging economic settings have allowed us to develop a new conceptual framework to address this issue in a useful way. There are at least three possible contributions implied in the framework.

First, our study offers a pragmatic perspective on the theoretical tension exemplified by Baumol and Gerschenkron and inherent in scholarly conversations relating to agency and environment. As far as practice and pedagogy in entrepreneurship are concerned, the key issue here is not whether agency or institutions matter in actual fact, but whether entrepreneurs *believe* that their agency can influence and transform the environments in which they live and work. For if they believed they could make a difference, their responses to the contingencies they encounter, *irrespective of the environment they operate in*, would be different. And this, to paraphrase the pragmatist philosopher William James, is a difference that would make a difference. In a comprehensive review of entrepreneurship education

including its challenges, Kuratko (2005, p. 591) ended on a positive note. “I believe we are at a point in time when the gap between what can be imagined and what can be accomplished has never been smaller.” Both the conceptual framework we present here and the method of counterfactual analysis that led to the framework allow us to tighten that gap even further by imagining ways to put contingency to work to create valuable ventures rather than to stand by and let it push us to quit or get defensive.

Second, the study described in this paper allows us to directly address an important gap in entrepreneurship education as pointed out in some detail by Tracey and Phillips (2007, p. 264)—namely, how to educate “social entrepreneurs, individuals who develop economically sustainable solutions to social problems.” Both Marriotti and Singer are social entrepreneurs who took on the challenge of creating positive social change in the economically challenging settings they found themselves in. The impact of contingency can be particularly important in the case of dealing with social problems. At the same time, being able to think through counterfactual responses to contingency with a view to transform it into a resource in creating positive change may be crucial in building enduring social ventures. Tracey and Phillips (p. 268) recommend having students “pick a social venture and write a teaching case based on the issues encountered by the social entrepreneur.” We would like to go a step further and recommend they write more than one case—come up with more than one way to transform the problems encountered into counterfactual opportunities for several different solutions. In using this technique in class, we have found that students not only exercise their creativity and imagination, they also begin to overcome the number one reason preventing them from becoming entrepreneurs in the first place—fear of failure. Once they begin to learn that contingent events can be transformed into resources for building viable and valuable ventures, they begin to see entrepreneurship itself as a viable and valuable career option.

Finally, a framework that teaches students to see contingency as a resource with the potential to transform circumstances that they previously saw as outside their control also compels students to see entrepreneurship neither as a deterministic phenomenon with an “either you have it or you don’t” type of success factor (be it genes, risk propensity, specific skills and resources, or brilliant foresight) nor a matter of chance. In a recent exposition on the role of serendipity in entrepreneurship, Dew (2009, p. 750) concluded, “In serendipity is the delight of the strange moment. But this does not make serendipity a residual, a leftover after the deterministic laws of the entrepreneurial process have run their course. Instead, serendipitous events—though by their nature individually unpredictable—may be worth understanding as a central, recurring feature of entrepreneurship.” Serendipitous events, just like positive and negative contingencies, are relatively uniformly distributed over all entrepreneurs. By themselves, these cannot explain performance. But what entrepreneurs *do* with such events can make a real difference in performance. And our task in developing a more rigorous understanding of contingency and constructing systematic pedagogical frameworks that enable potential entrepreneurs and their stakeholders to learn how to use contingencies as inputs into venture creation can be crucial to whether that difference in performance is positive or negative.

At first glance, bringing contingency into the classroom might seem a daunting challenge. A closer look, however, suggests exciting opportunities for injecting energy and inspiration into the learning process. Consider, for example, business plan competitions. Currently, these dominate the pedagogical landscape both in terms of financial and institutional resources invested and student engagement. Contingencies enter into this landscape in two ways—either in the form of unexpected market or competitive responses to the plan or through sensitivities in the financial assumptions leading to projected cash flows. Both of these are treated in an analytical fashion with students

responding to counterfactual questions from the judges and audience members rather than in terms of actual contingencies that force them to respond with material changes to the plan. With the insights gained from the conceptual model developed in this study, we could modify the “rules of the game” of business plan competitions as follows: Instead of a business plan presented to a panel of judges and random audience, students could (1) develop real pitches for actual stakeholders of their choice, stakeholders ranging from customers and investors to employees, suppliers, corporate partners, even family members, and members of the community; (2) videotape these pitches along with the responses of the stakeholders they are trying to bring on board; and then (3) develop and present their own responses to the stakeholder responses to a panel of judges and broader audience. Here, the test is of something more real and more contingent than the illusory certitude of “the plan” with only a tip of the hat to sensitivities in assumptions. Variations on this contest can include pitches and presentations to policy makers and grant makers as well as to professional advisors and experienced mentors—all with a view to engaging a variety of stakeholders in offering up a variety of contingencies that the students (potential entrepreneurs) learn to transform into productive possibilities for themselves and for others around them.

In sum, as policy makers, we need to take Baumol seriously so that we skew the macro environment in favor of productive contingencies; but as entrepreneurship educators, we can leverage Gerschenkron’s ideas to help shape the minds of future entrepreneurs who can then transform even unproductive contingencies into productive possibilities.

Conclusion

Entrepreneurship research came to a new maturing with the widespread coherence in the field around the notion of opportunities articulated by Venkataraman (1997) in *The Distinctive Domain of Entrepreneurship Research*. One aspect ensuing from this has involved a move away from the *discovery* of opportunities exogenously constructed to the fabrication or *creation* of them by entrepreneurs themselves (Alvarez & Barney, 2007; Sarasvathy, Dew, Velamuri, & Venkataraman, 2005; Zahra, 2010). An unavoidable side effect of including processes of making as well as finding opportunities into the purview of entrepreneurship is a philosophical move away from inevitability to contingency. The essence of contingency is that it is not necessity. In general, it is easier to make a Panglossian argument for discovery than for creative processes. For example, it is easier to argue someone would surely have discovered relativity even if Einstein had been killed in his childhood; or that the incandescent bulb would have been invented in a world without Edison. It is much more difficult to argue that cubism would have been invented without a Picasso or a Starbucks built without Howard Schultz. Another way to think about this is that entrepreneurs often achieve sufficient conditions for solving problems and building successful ventures even when any given solution they implement or any particular firm they build may actually be unnecessary. And that is why *what they do with contingency* has to form an important building block of our theories and our pedagogy.

Through a comparative and counterfactual analysis of the two very different histories of rather unlikely entrepreneurial education programs, we have tried to show in this paper not only how entrepreneurs deal with contingency; we have also developed a model of the various ways they *could* and perhaps *should* deal with it. The last not only ties together the empirical data with the theoretical puzzle highlighted by historical analyses of Baumol and Gerschenkron; it also leads us to modern developments in Pragmatist philosophy (Harmeling, Sarasvathy, & Freeman, 2009). In a seminal intellectual *tour de force*,

Contingency, Irony, Solidarity, Richard Rorty described Harold Bloom's conception of the *strong poet* as one who, "rather than trying to escape from contingency" engages instead in "acknowledging and appropriating" it (Rorty, 1989, p. 28). In this paper, we have shown that at least some, if not all, entrepreneurs are strong poets in this sense of seizing upon contingency as a resource to make and achieve new purposes for themselves and the world they live in.

Appendix

Narratives of Two Education Entrepreneurs

Steve Mariotti and the National Foundation for Teaching Entrepreneurship

One afternoon in September 1981 in broad daylight on the lower east side of Manhattan, a group of six teenagers surrounded Steve Mariotti and made him give up the \$10 bill he was carrying. They slapped him, knocked him down, and threatened to throw him into the East River. "It was deeply humiliating," Mariotti recalled, "I became frightened at the sight of young males who looked like they came from bad neighborhoods. I gave up jogging entirely and had constant flashbacks of that awful day's events." Mariotti was in a weak and defeated position; he felt hopeless and that was a foreign feeling indeed. He had been a success until that point, after all, and had planned to go on to even bigger things than he had already accomplished.

The paranoia lasted for months, and the flashbacks to the mugging continued. Mariotti got an idea—maybe he could try to get a teaching position in a very tough inner-city high school, as a way to overcome his fear. If he confronted the very people he had become so afraid of, he reasoned, maybe he could move on. "I only wanted to teach for about four or five days total," he said. "I was actually contemptuous of high school teaching. Mom was a high school teacher, and I felt, 'boy I can do better than that.' In my mind, my ego—how I viewed myself—was being a businessperson, running Ford Motor Company, or a big investment bank so thinking about being a high school teacher was such a step down for me." Mariotti thought that his therapeutic stint teaching high school would be very short lived and that as soon as he was done he could "resume his passion, the art of making dollars" (Mariotti, 2000, Foreword).

He applied for a position at the New York City Department of Education and requested that he be sent to the "worst school with an opening." He was assigned to the Boys and Girls High School in Bedford-Stuyvesant, one of Brooklyn's toughest neighborhoods.

Although the school had only opened in 1976, and had cost \$30 million to construct, Boys & Girls had quickly established itself as the worst school in the New York City public school system, and perhaps in the country. Primarily as a result of the negative publicity, seventy-two teachers simply refused to report for duty at Boys & Girls—they preferred to be unemployed. The dropout rate at the school quickly reached 50 percent. (Mariotti, 2000, p. 5)

Mariotti's first day at Boys & Girls started out relatively well. As students sat and quietly listened to his opening talk, he recalled feeling the fear receding. But that was just the calm before a seemingly endless storm.

I began to lose control on almost a daily basis. One student actually set fire to the back of another's coat—the student with the coat was as astonished as I was. In a rage, I

ordered the arsonist out of the class, and he was expelled the same day. On another occasion, I was locked out of my eighth-period class. Finally, one of the girls took pity on me and opened the door, just as I was going to admit total defeat and find a security guard. In each of my three remedial classes, there was a group of six or seven kids whose behavior was so disruptive that I had to stop the class every five minutes or so to get them to quiet down. In my third-period class, I once threw all the boys out. Ironically, those young men provided me with the valuable insight that set me on the road to teaching entrepreneurship. I took them out to dinner and asked them why they had acted so badly in class. They said my class was boring, that I had nothing to teach them. (Mariotti, 2000, p. 7)

Mariotti then asked his dinner companions whether *anything* he had ever said in class was of any interest to them. One of the students, a particularly troublesome 17-year-old bully, spoke up, recalling a class discussion that had taken place 5 months earlier. He remembered that Mariotti had talked to the class once about a transaction from the days of his import-export business. At the time, Mariotti saw it as a “little experiment” that he hoped would help him to get through the hour. But this student remembered every single detail—cost of good sold, gross revenue, operating costs, net profit. He was able to re-create the entire income statement that Mariotti had rattled off to them back then. “I was dazzled to find such business smarts in a student the public schools had labeled borderline retarded. This was my first inkling that something was wrong not only with my teaching but also with the standard remedial curriculum. It was the most important five or ten minutes of my professional life” (Mariotti, 2000, p. 7).

Shortly after that dinner, Mariotti was having a particularly bad day, even worse than the usual chaotic scene. Mills and Braddock were two of the worst troublemakers in any of his classes. They would blurt out animal noises, curse violently, and threaten classmates as well. On this day, these two bullies were at the center of the action once again.

I sat in my seat and felt something stick to the back of my jacket. I got up, looked at my chair, and saw a large wad of gum. The class roared. Then, seeing the hurt and disgust on my face, the group fell silent. A student named Therese came up to me and said, “You all right, Mr Mariotti, you have gum on your back; let me help you.” She pulled off as much of it as possible.

I tried to start a new subject, decimals, but asking them to learn something new at this point just made them anxious. A radio suddenly blared from the back of the room. The noise level soared, and Mills and Braddock got out of their seats and began dancing at the front of the room. The rest of the class began to clap in unison. I ran to the back of the room and threatened, “Turn it off, or I’m going to fail you.” Mills got up on my desk and continued to dance.

“Turn off the goddamned radio, you twerp!” I yelled. Someone, imitating me, yelled back, “No swearing, Mr. Mariotti!” I grabbed the radio and went to the front of the room. To my relief, Mills got off my desk and sat down in his seat, cursing me as he went. I could feel my face twitching. “Look, Mariotti’s having a nervous breakdown!” said another troublemaker. “You can’t control this class, Mariotti, because you don’t have juice,” shouted Mills. “Shut up and sit!” I shouted back. “Continue with the assignment.”

All of a sudden, I was hit in the eye with a spitball. I felt another wave of anger. “Who threw that?” I yelled. The class was again in total chaos . . . I walked out, and as I did so, I was hit in the back with a wad of paper. (Mariotti, 2000, p. 8)

At the end of his rope, Mariotti stepped out into the hallway and tried to regain his composure. He began to think about that dinner, and what the students had told him, that he was boring except when he talked about business, about money. After a few minutes, he went back into the classroom and broke into a spontaneous riff that launched the NFTE.

I walked back into the classroom and, with no introductory comments, started a mock sales pitch, hypothetically selling the class my own watch. I enumerated the benefits of the watch, explaining why the students should purchase it from me at the low price of only \$6. I noticed immediately that as soon as I started to talk about money, and how to make money by selling something, they actually quieted down and became interested. I didn't know it at the time, but that incident, born of desperation, pointed me toward my real vocation—teaching entrepreneurship to inner-city kids.

When I had their attention, I moved from the sales talk into a conventional arithmetic lesson: if you buy a watch at \$3 and sell it for \$6, you make \$3 of profit, or 100%. Without realizing it, I was touching on the business fundamentals of buy low/sell high, and on the more advanced concept of return on investment.

Combining the new entrepreneurial approach with a get-tough attitude (Mariotti made the offenders from that awful day write him notes of apology that they were asked to slip under the door before being allowed to re-enter), he began to have more control over his classes than he had ever thought possible. He continued to refine the new business curriculum, making up games around retailer-customer scenarios and mock sales calls where the sellers had to persuade potential customers to buy from them. Although Mariotti could see the amazing transformation in his students, not everyone was impressed.

Other teachers and administrators were constantly urging me to stress reading, writing, math, communication skills, and “good citizenship.” I found that approach to be nonproductive. When these young people got interested in starting their own businesses, they wanted to know how to write and add; they knew they needed those skills to conduct business effectively. They also knew that politeness and respect for the people with whom they were doing business were essential.

Knowledge of the principles of business modified the behavior of these kids. Entrepreneurship changed the structure of their psyches. One of my students, Maurice, although not one of the worst-behaved, was still angry, belligerent, mean, and threatening. He took to salesmanship, however. He became so good that I encouraged him to make actual sales. He invested a small sum in a dozen pairs of sunglasses, which I helped him buy wholesale. As he began to make a small profit through selling the glasses, his whole facial demeanor changed. Instead of being angry, he was conversational and polite. He had learned to assert himself non-aggressively through the selling process. By the end of the school year, he was making about \$60 a week in his spare time through sales. The increase in his confidence and self-esteem was incalculable.

Running their own businesses helped my students make better decisions in their personal lives because it taught them about delayed gratification. The primary act of business—buy low, sell high—takes place over time, with money as a reward. As a result, people seem to make better decisions in general after starting a business. Many times I saw that the way a student looked at the future was expanding right before my eyes.

Mariotti had many other, similar stories about students in his class. One girl, Tawana, who according to Mariotti had incredibly low self-esteem, started a manicuring business

at home after school. As her business grew, she noticeably changed—her personal hygiene improved, she began to attend school more frequently (that was where her customers were), and her grades improved as well. Mariotti saw her go from “being a social outcast to having a strong and healthy ego”:

For Tawana, entrepreneurship was an avenue, a link to other human beings. Like Maurice, she knew her local market intimately. She knew which girls would likely be customers. The \$40 or so a week she earned was her lifeline to interacting with other human beings in a mutual bond of self-interest. For Tawana and Maurice, business skills had also become social skills . . . one of my students, Sonya, seemed to have only sexual relationships with other human beings, particularly the boys in the school. When she developed her own little business doing her classmates’ hair (both boys and girls), it enabled her to communicate in a nonsexual way. She had something else to talk about, something that permitted her to have relationships without necessarily becoming sexually involved.

Eager to test his developing theories on entrepreneurship in a new environment, Mariotti applied for a transfer so he could teach at other schools in the New York City system. He continued to develop a business curriculum, teaching all his math classes as business math and re-writing MBA textbooks at a sixth grade reading level. “In the series of schools I was subsequently assigned to, spreading my ‘entrepreneurial message’ began to require more and more subterfuge. I was teaching the kids the subjects I was supposed to teach, but it took all my ingenuity to use an entrepreneurial or business context—which was the only way to keep up their interest” (2000, p. 14). Mariotti continued on this way until one principal in the South Bronx understood the potential value of entrepreneurship education for these students. She allowed him to teach a class in entrepreneurship and this effort eventually developed into the South Bronx Entrepreneurial Project. Finally out in the open, Mariotti was free to impart information to his students that they had “formerly considered irrelevant (reading and math), abstract (economics) or facile (advice on how to dress or behave).” The students now wanted to learn these subjects in the context of entrepreneurship because they could see that it could “profoundly affect their lives” (2000, p. 15).

After teaching entrepreneurship like this for several more years in a number of different New York public schools, Mariotti formally developed the NFTE curriculum, incorporated the organization, raised the necessary funds to get it started, and officially launched it in 1988.

Slavica Singer and the Graduate Program for Entrepreneurship in Osijek Croatia

In 1991, Serbian troops attacked the Croatian town of Osijek, after leveling Vukovar, only a few kilometers away. The 3-month siege and bombardment of Vukovar was a particularly brutal episode during the Croatian war of independence from Yugoslavia. In one of the war’s most horrifying events, at least 200 prisoners of war were seized in a Vukovar hospital and taken to a nearby pig farm where they were executed in what became known as the Ovcarica massacre. By the end of the relatively short (1 year) war, more than 1,000 Croats, and non-Serb civilians were massacred and thousands more expelled from the town. Hundreds more were massacred through daily shellings in Osijek.

Despite its short duration, as with all wars, the damage done far outlasted the conflict itself. The plight of postwar Croatia was in many respects similar to that in scores of other war zones (or postwar zones) throughout history, with its damaged infrastructure, high

unemployment, lingering ethnic tensions, and psychological scars. Yet, in other respects, it was of course unique, as are all distinct cultural contexts with their own particular conflicts, languages, religions, and traditions. Although it was difficult to separate the effects of the war from the general influence of economic transition throughout the entire region (Kovačević & Obadić, 2001), by the early 1990s, Croatia was left with hundreds of thousands of refugees, displaced persons, occupied territory, destroyed manufacturing facilities, and severely reduced market size. The standard of living fell to 40% of what it was before the war began (Dezeljin, 1995). The total number of employed, working-age adults fell by 40% despite the fact that the number of people employed in small companies doubled (Kovačević & Obadić).

There were various reasons for this bleak predicament. First, there was a terribly inadequate system of higher education. Second, the culture was rife with *Schadenfreude* and suspicious of entrepreneurs and entrepreneurship; a recent survey by the Global Entrepreneurship Monitor found that the overwhelming majority of Croatians would not find it acceptable if their children were to become entrepreneurs, while a majority of Americans would be happy with entrepreneurship as a career for their children (GEM, 2000). Finally, there remained aspects of the “socialist black hole” (Benic, 1999), whereby virtually no small- and medium-sized companies had existed during socialism, and the culture and political system did not yet support them despite the changing economic and political situation. The question was, given this set of rather chaotic and unpredictable circumstances, how could one begin to get out of the “vicious cycle” (Venkataraman, 2004).

It was in this environment that Dr. Slavica Singer, an Economics professor at the University of Osijek found herself at the beginning of the 1990s. A beloved and prominent figure in the university and in the town of Osijek, she felt helpless in the face of the destruction being visited upon her community. When the war came, she was in the process of trying to understand the needs of local businesspeople for training and education on how to improve their companies. The war stopped that project in its tracks.

Actually we started to think about the program almost 12 years ago . . . at the beginning of the 90's, we started to do some surveys among businesspeople in Croatia trying to get information which what they consider as needs for training and education. What they feel that they lacked in their education and what they feel is needed to improve their businesses.

It was just in the beginning of the war so we actually tried to make the research but then the war started in 1991, so we actually could not make the whole research. And then, because of the war, we just started to read because we just did not have opportunity. For example, our university was evacuated so we did not have lectures and exams in 1991 and 1992 and professors actually who stayed here in Osijek, we just tried to read. So I never read actually so much in my life as those two years.

This small group of my colleagues and me, we actually tried to understand what is entrepreneurship. So we started with Schumpeter and all others talking about innovation and entrepreneurship; so that was some kind of developing the basis of understanding. But [the] immediate motivation to make [a] university program, was when we saw that all big companies actually ceased to function during the war and we actually saw that people are suffering because they don't have jobs and it would be extremely difficult to re-start those big companies again.

Singer explained that it was physically impossible to function because of the daily shelling she and other inhabitants of Osijek were suffering at the hands of the Serbian

Army. Many companies were physically destroyed or so badly damaged by shelling that they could no longer function. Osijek, located in Eastern Croatia, was on the edge of territory occupied by the Yugoslav army and this, as Singer explained, made it “impossible to function in just a normal way. For example, some foreign trucks delivering some even humanitarian aid were not allowed to come to Osijek; they stayed in Hungary because insurance did not want to cover the risk of coming here.” She continued:

I thought we should do something to make possible for people who would lose or who already lost their jobs to start something on their own. So actually I started to talk to many foreign humanitarian organizations about starting some economic development program, but all of them, actually, refused to talk about this saying that it’s too early. So it’s the beginning of . . . it was 1992, 1993.

I don’t know why they felt that way, you should probably ask them; but they thought that the time was for humanitarian aid, not for development aid. But unfortunately, this part of Croatia actually stayed in such a “neither war nor peace” situation until January 1998. So it was absolutely impossible just to wait without doing something.

And so for us, as we saw the group of people who I was actually dealing with, we thought that one important solution is really to prepare people to start some business . . . to go into self-employment—to start the businesses by themselves.

Croatia had business education but it’s not in the terms as you have, for example, in the States. Usually people who became business people or managers in their companies, usually they had education provided by economic departments. So it’s a little bit different than in the States so it’s some kind of combination of macro-economic and micro-economic topics.

Singer explained that it was a huge challenge for her and her colleagues to prepare to teach a topic other than economics and traditional business courses such as marketing, financial management, and accounting, but they had nothing like entrepreneurship nor anything related to the needs and problems of starting or managing small businesses. “So those areas were actually the new territory for us in some ways, so we had actually to learn more about that—how to start the business, how to provide resources for the business, how to run the business and how to deal actually with transition from small business to growing or fast-growing business.”

In order to get a real program for entrepreneurship started, Singer approached various humanitarian organizations but was repeatedly rejected.

First of all, they said that it’s too early and then they said that it is not appropriate way to start with graduate program that it will be more logical to start with an undergraduate program. But we had to start with a graduate program to actually form a group of young people willing to enter maybe academic career to be able to teach later on undergraduate program.

Singer then approached United States Agency for International Development (USAID) and other humanitarian organizations working in the Balkans, but they were not interested in economic development at that time either, suggesting that Singer wait a little bit longer until the most basic humanitarian aid programs had stabilized the situation. But, as Singer explained, the war began in 1991, and UN troops left in 1998, so it had been nearly a decade. She felt this was long enough to wait.

It was like waiting for Godot. So I thought that it’s better if we do something by ourselves. So we collected information about entrepreneurship programs around the

world—mostly in the States—and I had luck actually to meet the person who has a good ear for listening to us and it was Piotr Korynski, the Director of Economic Development Program at the Soros Foundation in New York and it was just “click.” And suddenly, things started to roll.

I was actually a member of the board of the Soros Foundation in Croatia from the very beginning, from 1992. But Soros did not have an economic development program until 1997. So many of us living in this part of Europe tried to convince Mr. Soros that besides supporting independent media or education or culture that it was really essential to support economic development focused on self-employment, micro-lending, developing this sector of small businesses.

And happily, actually, he accepted what many of us from different countries actually were talking to him. And in 1997, he established an economic development program at the Soros Foundation in New York and Mr. Korynski was the first director and he’s still director of that program.

Singer designed the entrepreneurship program with the help of Mr. Korynski and his staff at Soros. They brought in foreign experts in entrepreneurship to teach subjects that their own professors were not trained to teach. The idea was for these foreign experts to train their Croatian counterparts to develop expertise and to take over the new courses in the near future.

To date, the graduate program in entrepreneurship at the University of Osijek had graduated hundreds of students, had begun construction of a new building for their program, and had gained international attention for the quality and sustainability of their effort.

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