

## Research Debate: Where Do Entrepreneurs Come From?

By

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Can a community increase the supply and/or quantity supplied of entrepreneurs through programs, training, stimulus, and regulatory change? It is generally agreed that small and medium sized businesses (SMB) play a significant role in a capital market and the region of the community or nation in which they operate. The supply of SMBs stimulates growth, creates jobs, and, maybe more importantly, creates high quality jobs. The positive impact of SMB growth and sustainment is of interest to researchers, government, and industry. The significance of SMBs' current role in our nation and communities makes it a mandate to understand

the variables that can influence and/or increase the supply of viable SMBs. Adam Smith recognized that the key catalyst needed to activate all the unique combinations of factors of production needed for a viable enterprise is the fourth factor of production: entrepreneurship. This is why in his work *Wealth of Nations*, entrepreneurship is segregated and distinguished from labor (Smith, 1789). The act of forming and causing an ongoing business enterprise from nothing is unique from that of growing or sustaining an ongoing enterprise.

The supply of new SMBs is driven from one key catalyst—the individual who acts on an idea

and acquires capital, employees, and land to cause that idea to become a functioning business. The entrepreneurship factor acts as a catalyst on the other three factors of production to create economic output. In periods of recession or slow growth, many economists believe that it is the single best solution to lowering unemployment, stimulating growth, and restoring a higher level of prosperity for their community.

**Is Entrepreneurship a skill to be trained, a natural ability, or both? Understanding the source of supply and/or the quantity supplied of entrepreneurs is crucial to encouraging new business creation.**

The ongoing debate and discussion about the total supply and quantity supplied of entrepreneurs is of interest to researchers looking to understand how to increase the total number of viable SMBs. Understanding whether there is a change in the

quantity supplied, or if an overall shift in the entire supply curve occurs is crucial to developing the most efficient strategies by the stakeholders charged with inducing growth in startups. To understand this difference, one must understand how nature and nurture impact the career decision to become an entrepreneur. This question drives the well-documented debate: Can a community increase the total supply, or is it just a movement along the same supply curve? Implied in this debate is the question: Do entrepreneurial intentions form naturally, or can they be created through nurturing?

**Keywords:** Nature, Nurture, Entrepreneur, Intrapreneur, Entrepreneurship, Intentions, Startup, Small And Medium Business (SME), Stimulus, Factors of Production, Jobs, Employment, Incubator, Small Business Development Center

## Introduction

There is a consensus that increasing the number of small businesses is good for the community. Most, if not all, researchers agree that it is necessary to increase the number of active entrepreneurs to reap the benefits derived from new businesses being founded. Where researchers do not agree is regarding whether you can produce more career entrepreneurs for a community and, if so, how.

Our debate stated in the form of a research question is: Can a community, through nurturing methods, create more positive entrepreneurial career choices regardless of an individual's natural predisposition to become an entrepreneur? This discussion of nature versus nurture is weaved into many other similar research questions, case studies, and empirical review discussions. A brief list of other research questions which deal directly or indirectly with this debate are:

- How does one's natural traits affect entrepreneurial intent?
- How does nurturing from a community or other stake holder impact entrepreneurial intentions?
- Must individuals have a natural predisposition to choose an entrepreneurial career?

As the various questions above were studied, the researchers developed a hypothesis for or against the position of nature or nurture as the predominant causal factor to an individual's decision to become an active entrepreneur. It is of little surprise that there is no consensus on whether nature creates the total supply of potential career entrepreneurs, or if we can expand the total supply of potential career entrepreneurs through nurturing elements in the environment.

The two competing schools of thought can be organized as follows: there are those who believe that entrepreneurs are created in nature, often called nativist. The other school of thought, held by the empiricists, is significant in size. Their view is that it is only through nurturing that we can increase the number of individuals willing and able to choose a career as a self-employed entrepreneur. The purpose of this writing is to explore both sides of this important and spirited debate. Specifically, the debated research question of interest is: Where do potential career entrepreneurs come from?

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## Research Methods for this Review

In order to establish a current view of the debate, this paper focused on articles that dealt specifically with

entrepreneurship, entrepreneurial training, and entrepreneurial intent when included in discussions of either natural or nurturing dependent variables on the independent variable of entrepreneurial career decision. The use of multiple academic databases, online resources, business journals, psychological journals, industry publications, and general media were reviewed to create a balanced and complete perspective from all stakeholders. The stakeholders represented include accomplished entrepreneurs acting as mentors, academics involved with evaluating the effectiveness of their curriculums, and private equity and venture capitalist investors focused on improving their individual investment decisions. In selecting which sources to include, consideration was given to studies that did not suffer from sample bias. It was crucial to find studies that looked at samples that included participants that did not initially have entrepreneurial intent.

Further consideration was given to striking a balance between traditional experiments, surveys and traditional data analysis, and works based on empirical observations of experienced subject matter experts. Further, this work looked to find conclusions

that definitively supported a position either for or against the influence of natural or nurturing variables on entrepreneurial intentions and entrepreneurial career decisions. To be certain the debate was current, weight was given to more current

and timely sources, publications, and studies.

The literature review conducted found a rich and deep pool of studies, cases, experiments, meta-analyses, and empirical position papers from both business focused social scientists, psychological, and behavioral science disciplines. The literature review found numerous experiments with traditional experimental designs and statistical data analysis. It also uncovered a plethora of empirical based writings taking a position and arguing the answer to be self-evident. Also found was a meta-analysis, in which many studies and their data were combined into a single overarching study.

In general, the existing research seemed to take on one of two basic models. The first method was to baseline a group of potential entrepreneurs, provide a nurturing treatment, and then measure to establish if entrepreneurial intent increased. This was predominately used by business focused social scientists, often ending in different conclusions. Psychological scientists tended to focus on gene theory, and the data that demonstrates how genetics directly influences personality, risk aversion, and leadership behaviors. Having established the genetic influ-

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ence, some scientists then hypothesized that entrepreneurs were created through nature, while other scientist opined they were not a product of natural creation. The scientists identified one set of facts, but came to numerous and varying conclusions. The conflict within each approach leads to a rich and intriguing debate.

To have a clear understanding of the debate, we must clearly define all nomenclature and assure that the debate is constructed with mutually agreed upon definitions. Many of the legacy studies do not define the terms explicitly (Lee, Wong, Foo, & Leung, 2011). In the brief review of the terms, found in the Appendix, it is imperative to avoid a common problem of being in “violent agreement.” This occurs when two or more people do not realize that the nomenclature being used is preventing them from seeing their common understanding and agreement.

## Review of Perspectives

### Historical Context and Evolution of the Debate

The nature versus nurture debate is one of the oldest philosophical issues within psychology. Plato and Descartes began the debate that certain traits are inborn, or that they occur naturally, regardless of environmental influences. John Locke was an En-

glish philosopher whose work took place in the late 1600’s. He was one of the first of the British empiricists. Locke’s “theory of mind” is often cited as the origin of modern conceptions of identity and the self. In it he postulated that, at birth, the mind was a blank slate or *tabula rasa*. He maintained that we are born without innate ideas, and that our lives are formed by experience derived from sensory perception. This old and well-established debate of what elements of a life are driven from nature versus nurture impacts many subjects of debate, including entrepreneurship.

So, what exactly is the nature versus nurture debate all about? Nature generally refers to all of the genes and hereditary factors that influence who one is. It defines our physical appearance and gender, as well as our personality characteristics. Nurture is a construct of all the environmental variables that impact who one is, including early childhood experiences, family experiences, other social relationships, and surrounding culture.

Even today, different branches of psychology often take a one versus the other approach. For example, biological psychology tends to stress the importance of genetics and biological influences. Behaviorism, on the other hand, focuses on the impact that the environment has on behavior. The debate between these two elements, perhaps fueled by researcher bias, is very robust.

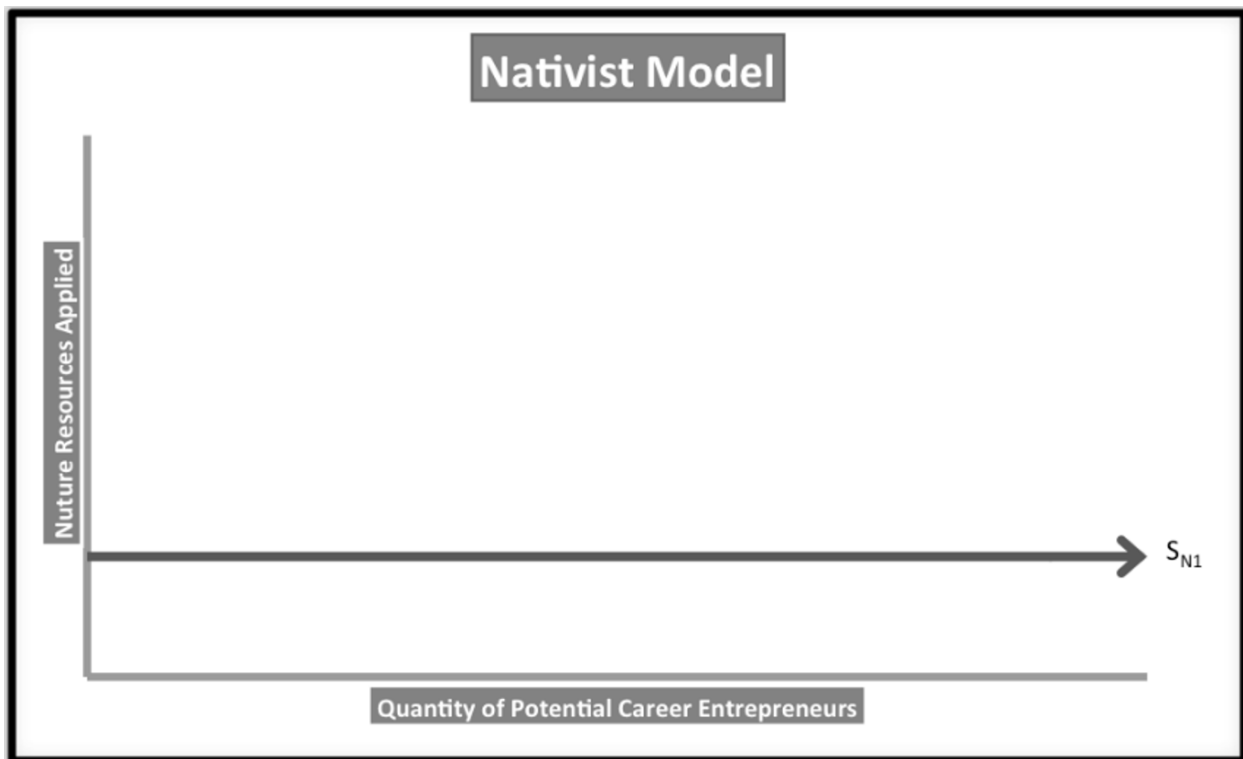


Figure 1: Nativist Model

## Nativist Theoretical Perspective

Nativists rely on their empirical observation, genetic research, and behavioral science research to form their hypothesis to the debated question. Their hypothesis is that there are a set of characteristics and traits that are unique to an individual with entrepreneurial potential. They see these predisposed traits as foundational and attributable to the uniqueness of each human as created through natural causes.

They hold that all persons who make an entrepreneurial career choice are predisposed to this decision by natural causes. They are careful to point out that not all pre-disposed individuals will choose an entrepreneurial career. They do believe that those that are not predisposed naturally will only be entrepreneurs by necessity, and likely only until an opportunity for a preferred career becomes available. The graph in Figure 1 below represents the purist Nativist position that there is a finite supply of potential career entrepreneurs that is not influenced by any environmental nurturing stimulus.

Scientists supporting this point of view argue that all characteristics and behaviors unique to an entrepreneur are the result of evolution. Genetic traits handed down from parents influence the individual differences that make each person unique. One interesting case study hypothesized that entrepreneurs have unique cognitive processes related to goal selection and strategy that directly cause their entrepreneurial choices. The author, Sarasvathy, argues that entrepreneurs use a unique and different form of reasoning and thinking. She states that while non-entrepreneurs use a causal or predictive reasoning, entrepreneurs use an “effectual reasoning” method to reason and make choices. She explains that, in causal thinking, the process begins with a goal and seeks a means. In effectual reasoning, one begins with a set of means and selects a goal. The author states effectual reasoning uses the same skills causal reasoning does, but also has the added skills of imagination, spontaneity, risk acceptance, and salesmanship (Sarasvathy, 2008).

## Entrepreneurial Traits and their Genetic Links

Scott Shane’s research provides strong evidence for an innate component to entrepreneurship. He claims research has found that genetics accounted for:

- 48 percent of the difference in the tendency to be self-employed.
- 39 percent of the variance in the number of years self-employed.

- 37 percent of the variation in the tendency to be owner-operator of a business.
- 37 percent of the difference in the number of businesses owned and operated.
- 41 percent of the variance in having started a business.
- 42 percent of the variation in the number of businesses started.
- 41 percent of the difference in having engaging in the start-up process.
- 42 percent of the variation in the number of start-up efforts undertaken.

In short, all measures of entrepreneurship examined by the various researchers that Shane worked with showed a solid genetic influence, even after accounting for other potential explanations (Shane, 2010).

DNA and genetic research suggests that there are three different mechanisms by which your genes exert their influence:

- Activity level
- Cognitive skills
- Personality

It is believed that entrepreneurs differ in their activity level. Shane claims that whether we are sedentary or hyperactive is partially the result of our genetic makeup (Shane, 2010).

Certain versions of genes that regulate the release of neurotransmitters from the adrenergic neurons, such as the adrenergic alpha-2A receptor gene (ADRA2A10), are

more common in entrepreneurs. Genes which are all more prevalent in people with entrepreneurial tendencies include:

- ADRA2A “orderliness” gene
- (DAT1) “activity” gene
- (DRD2) “impulsiveness” gene
- (DRD4) “novelty-seeking” gene

Shane claims that the effect of these different versions of neurotransmitter genes on the odds that people develop into entrepreneurs is significant. Nativists share studies that have shown that as many as 30 percent of those with this genetic makeup end up running their own businesses (as compared to as few as 5 percent of people without it) (Shane, 2010).

Nativists also claim that genes clearly affect intelligence. The genetic effect on cognitive ability is intriguing because people of higher intelligence are more likely to start businesses. Research has shown that the higher one’s intelligence is at age 12, the greater the probability that he or she will be self-employed as an adult (Shane, 2010).

Many genetic researchers assert that it is through our personalities that our genes exert their greatest influ-

One study hypothesized that entrepreneurs have unique cognitive processes related to goal selection and strategy that directly cause their entrepreneurial choices.

ence on one's tendency to start businesses. Psychologists have studied personality traits and their effects on the probability of becoming an entrepreneur, and now believe that the most important of these are the OCEAN personality traits (Tupes & Christal, 1992). OCEAN refers to five broad dimensions used to describe human personality. The five factors are:

- Extraversion
- Neuroticism
- Agreeableness
- Conscientiousness
- Openness

Extraversion is a personality trait that captures how sociable, talkative, and outgoing one might be. (DRD2) the "impulsiveness" gene and (DRD4) the "novelty-seeking" gene make one more likely than others to be extraverted, and to develop warm and close personal relationships, traits strong in people with entrepreneurial intentions (Tupes & Christal, 1992). Nativist theory states that there is compelling evidence that your genes affect your odds of becoming an entrepreneur by influencing your predisposition to be extraverted (Shane, 2010).

Nativists also claim neuroticism is another partially inherited personality trait that influences entrepreneurship (Tupes & Christal, 1992). Inheriting a high level of neuroticism makes it unlikely you are predisposed to think like an entrepreneur, according to nativist theory. His evidence includes a study which found when measured at age 11, a low score predicts self-employment by age 33.

The third personality dimension is agreeableness (Tupes & Christal, 1992). People with this characteristic tend to be cheerful, courteous, trusting, cooperative, kind, and altruistic. He believes the effect of our genes on agreeableness explains differences between people in their tendency to start businesses. Agreeable people are less likely than others to become entrepreneurs (Shane, 2010).

The next personality dimension is conscientiousness (Tupes & Christal, 1992). People with this trait tend toward perseverance, persistence, thoroughness, responsibility, and dependability. This trait set is influenced by several genes, including the "impulsiveness" (DRD2), "novelty seeking" (DRD4), "persistence" (HTR2A), and "sleep" (ADORA2A) genes. He states conscientiousness accounts for differences between people in their tendency to start businesses, because entrepreneurs need to be organized and deliberate, and have to move forward despite the obstacles that they face (Shane, 2010).

A final dimension in the OCEAN model is openness to experience (Tupes & Christal, 1992). Nativist theory claims people with this trait tend to be imaginative, creative, curious, and inventive. Nativists further believe where you come out on this aspect of personality is largely in your DNA, with studies showing that genetics accounts for between 45 percent and 61 percent of the variance in this characteristic. Nativists shared that recent research has shown that entrepreneurs are, on average, more open to experience than managers (Shane, 2010).

## Other Personality Traits

The OCEAN traits are not the only ones through which your genes influence your tendency to start a business. Other traits that Nativist theory links to genes and entrepreneurial predisposition, as surmised by Shane, include (Shane, 2010):

- *Locus of Control*: This dimension of personality captures the degree to which people believe that they can influence outcomes through their own behavior.
- *Self-Esteem*: Genes also influence your tendency to start a business through their effect on your self-esteem.
  - *Novelty Seeking*: Genes might influence your odds of starting a business through their effect on your tendency to be novelty seeking.
  - *Need for Autonomy*: One might be more likely than someone else to go into business for yourself because your genes predispose you to need a lot of freedom.
- *Risk-Taking Propensity*: You might be more likely than other people to go into business for yourself because you have a genetic predisposition to be comfortable with risk.

Nativists complete their analysis with a look at the interactions of genes and environments. Nativist theory proposes that genes affect your odds of being an entrepreneur through a variety of other gene-environment correlations. Nativists hypothesize that nurture elements only impact individuals with a predisposition towards a career as an entrepreneur (Suster, 2010).

Nativists believe that comparing the personality traits with the attributes of an entrepreneur, as described by Suster below, leads one to see how DNA and genes can greatly impact the odds that an individual will choose a career as an entrepreneur given the opportunity (Suster, 2010).

**Nativists hypothesize that nurture elements only impact individuals with a predisposition towards a career as an entrepreneur.**

## Empiricists Theoretical Perspective

Empiricists believe that an individual is not necessarily born with entrepreneurial intent or predisposed to an entrepreneurial career. Empiricists support the hypothesis that stimuli in one's environment, such as education, family, culture, and even business and innovation competency, can be applied to create an individual's entrepreneurial intent where it did not exist before.

Empiricists hold to the notion of *tabula rasa*, shown in Figure 2, which suggests that our mind begins as a blank slate. Per this notion, everything that we are and all our knowledge is determined by our experience, in the context of the environment we interact with.

Pure Empiricists believe that the long-term supply of career entrepreneurs is as vast as the total population itself. Empiricists believe that through combinations of environmental nurturing treatments such as education, incubators, loans and grants, they can attract and create new career entrepreneurs. Research shows that when a random group of people are exposed to positive environmental stimuli and education, that their intentions to become a career entrepreneur grow (Bae, Qian, Miao, & Fiet, 2014). Research demonstrates

that as the individuals' entrepreneurial intentions grow, the number of positive decisions to choose a career entrepreneur path expands (Lee et al., 2011). As depicted in the graph above, they see the supply of career entrepreneurs as starting at zero, and through environmental stimulus, the slope of the curve is positive and has virtually no limit. Empiricists believe that there is no presupposition that cannot be overcome through the nurturing resources (Küttim, Kallaste, Venesaar, & Kiis, 2014).

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## Forms of Nurture and Environmental Causation of Entrepreneurship

Environmental factors and influences that positively nurture the potential entrepreneur pool include:

- *Family History or Legacy*: Empiricists believe that entrepreneurial intentions and career decisions are enhanced when one's family and circle of relationships includes other entrepreneurs and small businesses.
- *Culture*: Empiricists believe that societies that have market places that revere and encourage entrepreneurship create an increase in entrepreneurial intentions and career decisions.

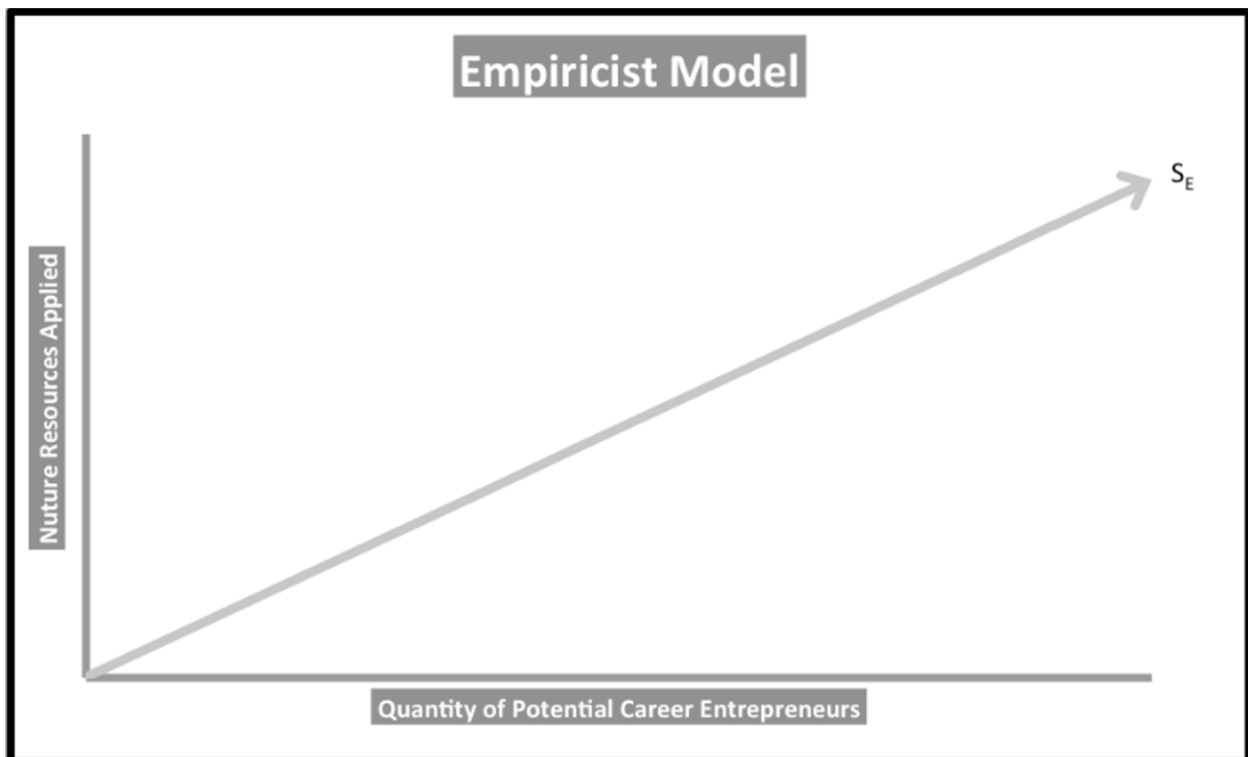


Figure 2: Empiricist Model

- *Venture Capital and Private Equity*: This factor involves professional investors who provide money to seed early-stage, emerging and emerging growth companies, for profit. Venture capital funds invest in companies in exchange for equity in the companies they invest in, in the hopes of selling the equity for a gain over time.
- *Incubators*: An organization that provides advice, equipment, temporary premises, or other facilities to those starting up a business and lacking in capital.
- *Education*: Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. There are variations of entrepreneurship education offered at all levels of schooling from primary or secondary schools through graduate university programs as well as ongoing continuing education in short duration non-accredited seminars.
- *Governmental Programs*: Small Business Administration (SBA): The SBA provides the three c's of capital, contracts and counseling. Various services are offered such as loan guarantees, grants, and assistance with day to day business challenges. Specialized programs such as the 8(a), Service-disabled veteran-owned business (SDVOB), Women-owned business enterprises (WMBE), and historically disadvantaged business zones (HUBZone) are created and administered by the SBA as well. Also, Small Business Development Centers (SBDCs): SBDCs can offer a variety of seminars, counseling, and mentoring. Topics include all relevant areas from marketing to finance. These continuing education courses can help small-business owners develop and enhance their skills.
- *Other Programs*: Numerous private, city, state and county programs also exist that provide a wide array of assistance such as business plan creation, assistance with regulatory compliance, tax and accounting assistance, disaster recovery, continuing education and seminars, networking and marketing, and programs for minority and women-owned organizations.

Many empiricist researchers take the position that entrepreneurial intention is created through education.

Empiricist researchers hypothesize that entrepreneurial education is causal to entrepreneurial ca-

reer intentions (Bae et al., 2014). Many empiricist researchers take the position that entrepreneurial intention is created through education. The most common current study was often supported through a discussion on "Theory of Planned Behavior (TPB)" (Rauch & Hulsink, 2015).

Rausch and Hulsnick ran an experiment based on TBP in which they concluded that entrepreneurship education is effective in expanding the number of career entrepreneurs for a community. They found that students who participated in an entrepreneurial training program demonstrated increases in attitudes and perceived behavioral control, basic premises of TPB. They went on to state their research demonstrated that the increase in intentions is a significant mediator which impacts subsequent career decisions (Rauch & Hulsink, 2015).

In a post on *Techcrunch*, Vivek Wadhwa challenged nativists Fred Wilson and Jason Calacanis, who are strong proponents of a natural predisposition (<https://techcrunch.com/>). Wadhwa wrote:

"I've got news for you: you've got it all wrong. Entrepreneurs are not born, they're made."

Wadhwa bases this opinion on the results of a survey of 549 successful entrepreneurs. He noted they did not have entrepreneurial parents, rebutting the genetic pattern. Further, he claims that the survey demonstrated no predisposition in their youth, claiming that nurture and environment created the intentions growth. Of further interest, he stated that the results of the survey gave evidence that education not only creates career decisions, but also created larger and more successful enterprises (Wadhwa, Holly, Aggarwal, & Salkever, 2009).

### Traits of the Entrepreneurial Mindset

Both empiricists and nativists agree on the traits that support, drive, and define the entrepreneurial mindset. Where they don't agree is in what creates the level of the trait observed in career entrepreneurs. The Figure 3 diagram that follows demonstrates how the traits identified by Suster may correlate to the two theories (,

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- Tenacity
- Street smarts
- Mental flexibility
- Work ethic
- Attention to detail
- Competitiveness
- Decisiveness
- Integrity

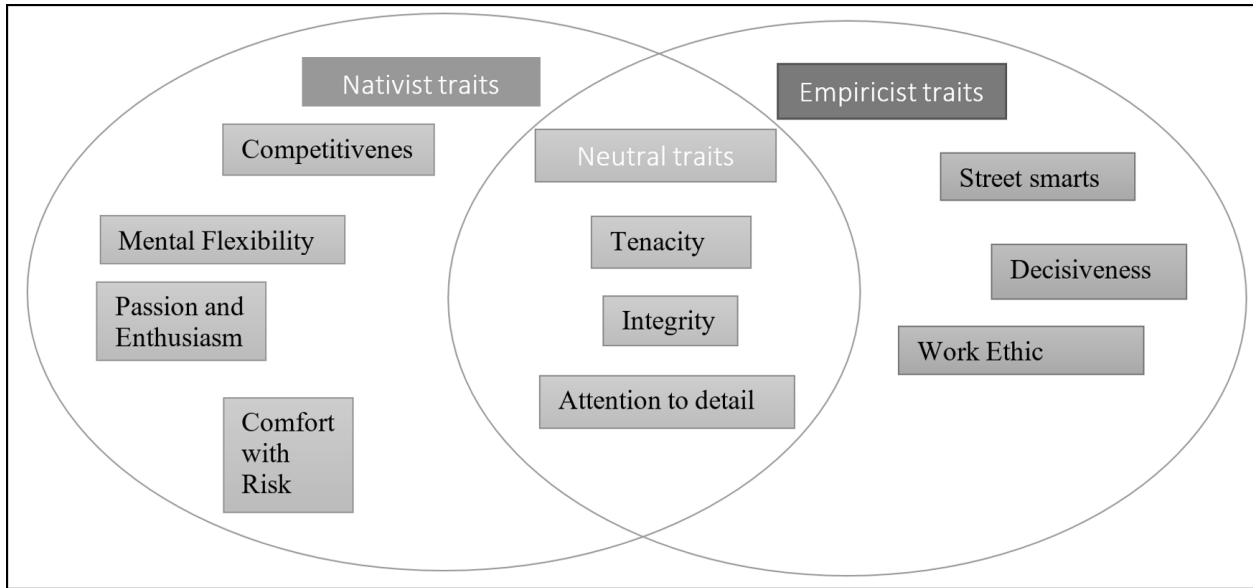


Figure 3: Origin of Entrepreneurial Traits

- Passion and enthusiasm
- Comfort with managing risk

### The Debate

The debate can be restated as, “Do entrepreneurial intentions form naturally, or can they be created through nurturing?” Nativists agree that favorable environments increase the quantity supplied of career entrepreneurs by removing barriers and encouraging a natural predisposition. They do not agree that it changes the number of potential career entrepreneurs, as they hold that is fixed by genetic predisposition and other natural causes.

Empiricists believe that all people start with the same blank slate, with no level of intentions at all. They hypothesize that only through environmental stimulus such as education, subsidy, and incentives do individuals develop positive intentions that evolve into a career decision.

Figure 4 represents the perspective of potential career entrepreneurs based on the two views. It represents not the number that choose a career, but rather the number that have the potential to make the choice. This helps us see the specific point of debate between the two theories.

### What Are the Key Differences Between Nativist and Empiricist?

Nativists believe your genes influence the odds that you will become an entrepreneur. This statement is true whether entrepreneurship means being self-employed, owning and operating a business, founding a company, or participating in the business start-up process.

They are careful not to argue this as an absolute, allowing for necessity based entrepreneurship, but clarifying that, when viewed from a long term career decision, the odds are low for an individual to overcome their predisposition towards or away from their genetic construction. There is nothing in one’s genetics that will guarantee they will become an entrepreneur and nothing that will preclude it. Even if one lacks the genes that support an entrepreneurial tendency, you can always overcome any genetic predispositions, at least for a short duration. However, if you have the genetic traits, they will increase the probability of becoming a career entrepreneur.

Nativists conclude that current research suggests that innate predispositions for a high activity level, intelligence, and personality traits such as self-esteem, novelty seeking, high risk tolerance, non-conformance, extraversion, emotional stability, openness to experience, and conscientiousness increase the odds that an individual will choose to become a career entrepreneur. Moreover, people’s genes influence their chances of founding a company by impacting the odds that you will find yourself in a favorable environment.

Nativists believe one’s genes affect their chances of starting a company through the direct impact on their personality, cognitive skills, and activity levels. Those people with favorable genetics are more likely to create new businesses.

Empiricists maintain the premise that all people are born with a clean slate, with no predisposition or meaningful difference in base line intentions. They believe that, as one goes through life, if their experiences, environment, and education are conducive, an increase in intentions will cause an entrepreneurial career choice.



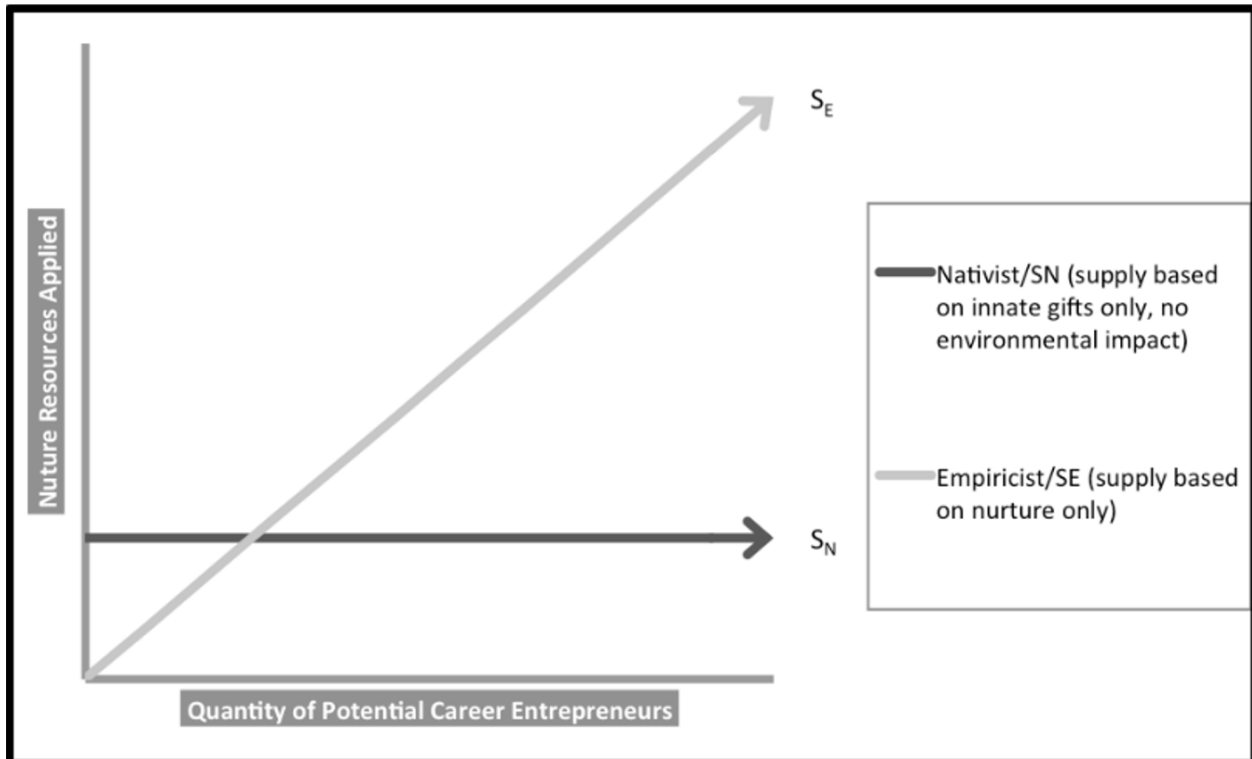


Figure 4: Potential Career Entrepreneurs

### Why and How It Matters

Per the global entrepreneurship monitor (GEM), there are 400 million entrepreneurs in 54 countries. 165 million are early stage (18-25 years old or younger) (Sondari, 2014). These impressive numbers notwithstanding, the world wants and needs more entrepreneurial careers.

It should be clear that the role of nature versus nurture is important in establishing a strategy for increasing the number of individuals who act, and choose an entrepreneurial career. Whether it is via private investment or community development, billions of dollars are invested each year. Investing in the right people at the right time is crucial to maximizing the return on these investments. Optimizing the selection of people into whom should be invested, who is allowed access to the subsidies, grants, and programs, and who will be accepted into educational programs is all dependent on choosing the best candidates. This choice is driven by identifying the pool of candidates. Prequalifying individuals for these resources is best accomplished by having a better understanding of whether to measure their natural characteristics or evaluate their environmental experiences.

Stakeholders who believe in the nativist model will simply look to identify individuals who are predisposed to an entrepreneurial career, and confirm the environment will allow the career intentions to be

acted upon. Based on the stakeholders' goal, an investor may choose to provide capital, an incubator may offer resources, or a community may offer incentives to this targeted audience.

If you adhere to an empiricist perspective, you will seek to find the most efficient nurturing strategy, and predict the levels necessary to create the marginal change in entrepreneurs that the community is looking to produce. Your strategy will look to identify those who, regardless of natural ability, have had the environmental experiences that are likely to induce a career decision. Further, you may focus more on the environment and less on the candidate. If you create bigger and better environments, the individuals will evolve, regardless of predisposition.

They are two very different means to the same end-driving economic growth and prosperity for everyone by creating a larger supply of career entrepreneurs.

### Conclusions

In conclusion, while both sides seem to agree that the quantity supplied of entrepreneurs can be increased through environmental improvements and nurturing treatments, they do not agree on the total potential "career entrepreneurs." The definition and clarification of "career entrepreneurs" is critical to seeing the debate gap. It segregates out "necessity driven entrepreneurship" and other short term behaviors that are not likely to impact the long-term

supply of entrepreneurs for a sustained period of time.

The nativists believe that there is a finite number of naturally occurring individuals predisposed to the long-term career choice to start and sustain an enterprise. They support their hypothesis through the research supporting that DNA and genes affect personality traits which drive intentions, such as risk aversion, passion, drive, tenacity, and even problem solving conceptual skills. This genetic predisposition yields a supply that represents the total potential career entrepreneurs. They conclude that nurturing, both positive and negative in form, simply affects which point is reached on a single predetermined supply curve.

Empiricists believe that any and all individuals can be nurtured, in particular through specialized training, to become career entrepreneurs. They argue that regardless of predisposition--through education, training, and constructive market conditions--a group of individuals not predisposed to an entrepreneurial career can be motivated to make a career decision. They measure this change in potential through measuring pre and post intentions after a nurturing treatment has been applied.

Another way of seeing this debate is to focus on the collection of nurturing elements as a group of mediators. The empiricist would claim that--when constructive nurturing is made available--the total supply of potential career entrepreneurs increases, resulting in a shift in the quantity of career entrepreneurs at all points. Nativists would disagree, taking the position that the impact of the nurturing treatments is not an increase in supply, but rather quantity supplied, meaning a movement along the same supply curve. Further, they would point out that inaction might be as effective as active nurturing.

For example, removal of government regulation, tort reform, and taxation penalties would be some examples of negative nurturing treatments; simply stopping these negative stimuli would enhance the quantity supplied. Nativists would likely still argue that this is a movement along the same supply curve, and not a shift up or down in supply. In the end, both sides may agree that there is a higher or lower quantity of potential entrepreneurs, but they don't agree on whether they have moved along a finite naturally occurring supply, or shifted the long-term supply through environmental stimulus.

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## **Appendix: Key Nomenclature: A Baseline for the Debate**

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**Supply:** A linear equation which demonstrates the relationship between the quantities supplied of a resource and a particular level of resource driver. For this purpose of our debate, the curve plots all possible combinations of quantities of potential career entrepreneurs for all possible nurturing levels.

**Quantity Supplied:** The specific quantity the market will provide, given the amount of a specific driver. A single point on the linear supply graph that represents the quantity supplied for a given level of stimulus. For the purpose of this debate a specific number of potential career entrepreneurs acting to create and sustain a business, given the nurturing resources available at a point in time.

**Entrepreneurship:** Gartner defined entrepreneurship as the process of organizational emergence (Gartner, 2004). Legacy research conforms to this definition which places emphasis on creation and emergence, over sustainability and growth.

**Entrepreneurial Intentions:** A term intended to describe or measure an individual's propensity to create a new enterprise in their future.

**Entrepreneurial Career Intention:** A state of mind to create one or more of their own businesses during their life's work. A lifelong decision, using different skills during different portions of the business life cycle, from startup to divestment.

**Necessity Driven Entrepreneur:** a short duration career decision, driven by necessity during recession or when one encounters other road blocks to a preferred career choice.

**Entrepreneurial Career:** Emphasis on this being a lifelong choice--evolving in new roles as the business evolves--in contrast to traditional organizational career, marked by changes in roles as one advances in the organizational chart through promotion and assignment of new duties.

**Nature:** Refers to all of the genes and hereditary factors that influence who we are, from our physical appearance to our personality characteristics, intelligence, and risk aversion.

**Nurture:** Refers to all the environmental variables that impact who we are: including our early childhood experiences, how we were raised, our social relationships, and our surrounding culture.

**Nativists:** Hold the position that all or most behaviors and characteristics are the result of a natural genetic inheritance, as provided by creation.

**Empiricists:** Hold the position that all or most behaviors and characteristics result from learning.

*Source:* Developed by case writer

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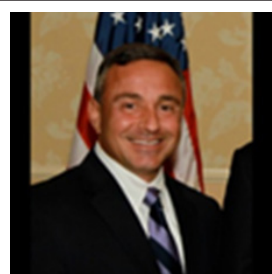
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## Review

This article was accepted under the **constructive peer review** option. For further details, see the descriptions at:

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