

East Tennessee State University

Digital Commons @ East Tennessee State University

Undergraduate Honors Theses

Student Works

12-2018

Entrepreneurship and the Effects of Nature and Nurture

Adam Guillory

Follow this and additional works at: <https://dc.etsu.edu/honors>



Part of the [Entrepreneurial and Small Business Operations Commons](#)

Recommended Citation

Guillory, Adam, "Entrepreneurship and the Effects of Nature and Nurture" (2018). *Undergraduate Honors Theses*. Paper 822. <https://dc.etsu.edu/honors/822>

This Honors Thesis - Open Access is brought to you for free and open access by the Student Works at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Undergraduate Honors Theses by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact digilib@etsu.edu.

College of Business and Technology
Honors Thesis Signature Approval Form

*Entrepreneurship and the Effects of
Nature and Nurture*

11-14-2018

The members of the Thesis Committee
approve the Senior Honors Thesis for
Adam Guillory

Thesis Committee Chair
Dr. John Whitmore

CBAT Thesis Committee Member
Dr. Craig Turner

External Thesis Committee Member
Matthew Tibbs

CBAT Honors Director
Dr. C. Allen Gorman

*Entrepreneurship and the Effects of
Nature and Nurture*

Adam T. Guillory

East Tennessee State University

Abstract

This paper provides a systematic review of studies and opinions on the debate over whether entrepreneurs are born or made. Attention has been paid to reducing bias and locating as many credible sources as possible. Unfortunately, peer reviewed, quantitative studies and data on this topic seem to be lacking. Research on whether or not secondary, formal education is required in entrepreneurship and if so, the effects are also analyzed. After much review, information on both sides of the argument seems to be well founded and evenly split. An audience polled before and after an argument on the subject was also relatively even and any change in opinion was not statistically significant. The necessity of secondary education was also split depending on the goal. However, capital creation and financial success down the road are two areas in which the results are statistically significant and should be looked into further.

Introduction

In a free market economy, the government has little control over the prices and values of goods. The economic activity and prices in day to day life are driven by supply and demand. This creates opportunity for wealth, cultivates entrepreneurs, and leads to competition between people and companies. In a country with this type of economy, such as the United States, entrepreneurs will always be the driving force behind economic growth and prosperity. The Merriam-Webster dictionary (n.d.) defines an entrepreneur as “one who organizes, manages, and assumes the risks of a business or enterprise.” This definition is not all encompassing and will be discussed further later. Over recent years, entrepreneurship and the number of startup businesses in the US has been on the decline. The US Census Bureau provides a graph depicting startup numbers being the lowest they have been in decades (as cited by Long 2016). However, Timmons (1999), states that since 1980, up to 95 percent of America’s wealth has been generated by entrepreneurs. With this type of wealth potential, why are the number of new business ventures continuing to drop? One potential cause is the uncertainty of success due to the nature vs. nurture argument. The argument over whether entrepreneurs are born with an innate ability to start businesses and be successful or if someone can be taught business success. There have been studies performed pertaining to this in the past but most focus on satellite issues such as startup capital and skills required. An example of this is Blanchflower and Oswald’s article, “What Makes an Entrepreneur.” Unfortunately, most information specifically focusing on nature versus nurture in entrepreneurship is presented in the form of opinion pieces and articles via magazines and websites, rather than studies and journals. The limited amount of research on this topic is due mainly to the difficulty in measuring success, influences on people, and the immense time required for such an undertaking. These limitations will be expounded on later. This article

will be attempting to analyze if there is any statistical significance in the difference between nature versus nurture arguments as well as the importance of schooling in entrepreneurship. Whether or not schooling is necessary, and the type of schooling received will be reviewed. The target audience for this research will be anyone who is interested in what is required for successful entrepreneurship, whether for research purposes or to examine the characteristics needed to make it as an entrepreneur.

Methodology

This study will employ a systematic review of available literature to gather data which will be used to observe whether or not there is a large enough amount of quality data to support a nature or nurture argument as well as a statistical significance test to determine if there is enough information to reject the null hypothesis. Assuming a null hypothesis of .50, that the arguments are divided between nature and nurture, a McNemar test will be used to determine any statistical significance in a change in opinion before and after an argument presented to an audience. Arguments will be assessed for validity via author's background, entrepreneurial success, sources, and location of publication. As previously stated, since there is not an overwhelming amount of information from studies and prior research on this topic, unfortunately many different types of sources will be used outside of more reliable sources such as peer-reviewed journal articles. Locations of publications will vary between blog posts, major magazines, news networks, and journal articles with the validity of these improving from lowest to highest.

Literature Review

What Makes an Entrepreneur

Entrepreneurs take on the risk of a business or enterprise. However, many other characteristics are vital in being an entrepreneur. Blanchflower and Oswald (1998) analyze very heavily the effects of capital on entrepreneurs in the startup phase. They point out that out of 451 employees surveyed who responded they consider becoming self-employed "very seriously" or "quite seriously", 51.3 percent listed lack of capital as the reason they did not become self-employed. Research by Parker and Praag (2006) suggests that "1 percentage point relaxation of capital constraints increasing entrepreneurs' profits by 3.9% on average." This information supports the assertion that not only is startup capital vital in even starting an enterprise but with lower constraints on capital, higher profits can be expected. In a roundtable discussion between entrepreneurs Olga Vidisheva, Oliver Miao, and Michael Votto, Vidisheva and Miao both mention that the passion they have for making a difference in their worlds are a significant factor in their success and getting started in entrepreneurship. Miao also mentioned that a key characteristic in being an entrepreneur is the love to learn. John Rampton agrees with this in mentioning that reading is vitally important and that "the brightest people are always learning" (Rampton, 2018). Author and entrepreneur Rodney Walker in his interview by Shawne Osbourne (2016) states, "... I think the 'thirst for knowledge' is one of the most important attributes of the entrepreneurial mindset." On mindset, Bruce Bachenheimer, a clinical professor of management and executive director of the Entrepreneurship Lab at Pace University, states, "At its core, [entrepreneurship] is a mindset" (as cited Fernandes, 2018). Helmstetter (1986) writes, "You will become what you think about most; your success or failure in anything, large or small, will

depend on your programming - what you accept from others, and what you say when you talk to yourself” (p. 25). While his book is about programming your mind with your words, mindset being focused on what you want is the end goal, as it is in entrepreneurship. Entrepreneurs also have a high risk tolerance. Gerry Segal, Dan Borgia, and Jerry Schoenfeld (2005) found through their experiments that entrepreneurs have a high risk tolerance and that there was a positive correlation between risk tolerance and intention to become an entrepreneur. Steve Benson states, “To be a successful entrepreneur, you have to be someone who is able to risk failure at the deepest personal levels” (as cited Fernandes, 2018).

Entrepreneurs are Born

Justine Smith states, "The journey of entrepreneurship is a lifestyle for many of us; we are wired this way and have no choice. We are driven by an innate need to create, build and grow." She is echoed by Eric Lupton, “Being an entrepreneur is ingrained in one's identity” (as cited by Fernandes, 2018). In this section we will begin analyzing literature on the argument that entrepreneurs are born, much of which is based in someone’s personality. The Big Five personality traits as outlined by Matthews, Deary, and Whiteman (2003) are extraversion, neuroticism, openness, agreeableness, and conscientiousness. Extraversion is shown by positivity, excitement seeking, and assertiveness. Neuroticism can be shown by anxiety, impulsiveness, and depression. The other 3 personality traits will not be analyzed much in this paper. Zhang, et al. (2009) however, assert that the correlation between extraversion, neuroticism and entrepreneurship is statistically significant. Extraversion, and at a lesser degree neuroticism, can also be tied to hypomania. According to John Gartner (as cited by Gannett, 2012),

“Hypomanics are brimming with infectious energy, irrational confidence, and really big ideas. They think, talk, move, and make decisions quickly. Anyone who slows them down with questions “just doesn’t get it.” Hypomanics are not crazy, but “normal” is not the first word that comes to mind when describing them. Hypomanics live on the edge, between normal and abnormal.”

Åstebro, Herz, Nanda and Weber (2014) mention the importance of overconfidence in entrepreneurship. They also assert that while overconfidence can seem like risk aversion at face value, there are noticeable differences. David Hornik (2010) adds some characteristics of hypomania including, rapid speech, inflated self-esteem, racing thoughts, decreased need for sleep, and attention deficit. James Koch (as cited by Daley, 2013) states, “...they have highs that are really high and lows that are really low.” When thinking of Steve Jobs, Gary Vaynerchuk, or Elon Musk, many of these characteristics fit. As mentioned earlier, the ability to take risks and having a lower risk averse personality is important in being an entrepreneur. Again, if the Merriam-Webster (n.d.) defines an entrepreneur as someone who “...assumes the risk of a business or enterprise” then having the capacity to take on risk will be required to become an entrepreneur. Cesarini, Dawes, Johannesson, Lichtenstein, and Wallace (2009) assert that risk taking and risk aversion is actually a genetic and hereditary trait. Eileen Huntington is quoted from the article used previously by Fernandes (2018) that, “Successful entrepreneurs ... have the guts to take a calculated risk and the tenacity and persistence to keep going even when there are bumps in the road.” This would support the argument that one needs to be born with the aptitude to take on risk, and thus become an entrepreneur. Next is the need for achievement. Gary Vaynerchuk (2015) calls it a chip on the shoulder, a motivation driving someone to go out and win. He mentions both those coming from nothing and those coming from wealth. Those

wanting to show the world they can make it big when starting from scratch and those that are born wealthy, that they can do it on their own. Andreas Rauch and Michael Frese conducted a study on the psychology of entrepreneurs as well as an overview of some other relevant findings. They pointed out that three out of five studies showed statistical significance between entrepreneurs and a higher need for achievement (Rauch & Frese, 2000). An important aspect of most entrepreneurs is opportunity identification. A comprehensive study by Nicolaou, Shane, Cherkas, and Spector (2009) utilizing twins found that there is a genetic correlation between tendency to identify opportunities and entrepreneurship. This study was mentioned and cited many times throughout the research done on this topic. Vaynerchuk (2015) agrees in opportunity awareness being an important characteristic for entrepreneurs to have. Vaynerchuk was an early investor in Twitter, Tumblr, Snapchat, Uber, and Facebook, so his opinion on opportunity awareness can be seen as credible. Concerning biological traits more concrete than personality, White, Thornhill, and Hampson (2006) have done a study proving that the likelihood of starting a business is explained, in part, by testosterone levels, which is a heritable biological trait.

Entrepreneurs are Made

Likely, one of the most famous and recognizable entrepreneurs was very convinced that entrepreneurs are made. One of his most famous quotes, Walt Disney states, “All our dreams can come true, if we have the courage to pursue them” (as cited Pompa, n.d.). Disney believed that if someone has a dream and the patience and willingness to pursue it, they can achieve it. This section will analyze journal articles, professional opinions, and opinions of entrepreneurs who believe entrepreneurs can be made. Even though education is certainly a “nurture” component in this argument, its effects will be saved for later when the effects of education on

entrepreneurship in general are analyzed. We will begin with observing the ability to generate startup capital as one of the characteristics of an entrepreneur stated earlier. Kim Kiyosaki, husband to real estate mogul and entrepreneur Robert Kiyosaki, wrote an article detailing raising startup capital. She outlines four key components that someone seeking startup capital needs expertise with to raise money. These four components are: knowledge on the project, partners, financing, and management. These components can be studied and taught how to perfect for a sales pitch. Kiyosaki also mentions that raising startup capital is “common business sense” (Kiyosaki, 2010). Raising capital can also be seen as salesmanship. We must now examine whether salesmanship is genetic or can be learned. Heidi Grant received her doctorate in social psychology from Columbia University and is the Global Director of Research & Development at the NeuroLeadership Institute and as such will be viewed as a credible source on the topic of psychology. According to Grant, salesmanship is not an innate ability, but can be learned. She states, “If you want to become good at influencing others, then you simply need to learn how. It’s not magic, and it’s certainly not innate” (Grant, 2013). Grant mentions that some research shows that many character traits and personalities like conscientiousness and humility are important in being a good salesman however, “...it’s important to not assume that personality traits = innate ability. Personalities can and do change as a result of our efforts and experiences” (Grant, 2013). If a large part of the argument for entrepreneurs needing to be born is their personality, and personalities change, does this discredit the entire argument? Marita and Florence Littauer’s book *Wired that Way* points out it is unfair to state that personalities can be completely changed from one main personality type to another (M. Littauer; F. Littauer, 2006). For example, a core personality trait such as being an introvert or extrovert will likely never change. An introvert can adopt parts of an extrovert’s personality but will never become an

extrovert. This is referred to as a personality mask (M. Littauer; F. Littauer, 2006). When it comes to entrepreneurship specifically, some research has found that individuals with entrepreneurial role models are more likely to engage in entrepreneurial activity (Carsrud, Olm, & Eddy, 1987). However, many role models that people have as children and young adults are their parents. Due to this, it is fair to assume some variability can occur in whether it is the role model or the genetic component that is contributing to the likelihood of future entrepreneurship. If we look back to the section on what makes an entrepreneur, we can see that mindset is a vital component. Is mindset genetic or can it be trained? Many books such as, *What to Say When You Talk to Yourself*, *Think and Grow Rich*, and *The Magic of Thinking Big*, are very successful books focused around developing and training your mind to achieve your goals (Helmstetter, 1986; Hill, 1937; Schwartz, 1959).

Effects of Schooling on Entrepreneurship

Secondary education has always been a driving force behind intelligence and technologically advanced civilizations, such as the United States. However, when the subject matter is less concrete in comparison to engineering or medicine, like entrepreneurship, how can we even be certain schooling is effective? If entrepreneurs are born rather than made, would this make entrepreneurship classes at the university level pointless? This section will analyze arguments for and against schooling and its effects on growing entrepreneurs. Referencing again the article on capital constraints, Parker and Praag (2006) point out that extra schooling helps relax the startup capital constraint upon prospective entrepreneurs. While stating that an extra year of schooling helped reduce capital constraints by 1.18%, they did not provide information regarding additional years of schooling. Therefore, it is not known whether each additional year

of schooling would continue reducing constraints by 1.18%, or if the effects of extra schooling after one year were negligible. It is also worth noting that the average rate of return for secondary education lies anywhere between six and fourteen percent (Parker & Praag, 2006). In relation to Kiyosaki's placing of importance on selling and raising capital, the skills needed for those endeavors can certainly be learned and sharpened through formal education. Van Der Sluis, Van Praag, and Vijverberg (2008) find that the higher the degree of schooling, such as college, graduate, and post graduate, the higher the chance of better performance of entrepreneurs. Performance is defined as earnings, survival rate, and growth. However, they do acknowledge that performance is significantly higher in the United States which may be the cause of "business positions that predominantly benefit the more highly educated" (Van Der Sluis, et al. 2008). It is safe to say, according to these sources, that education benefits entrepreneurs in the financial realm of their craft. However, what about when it comes to their personalities or developing the skills to be an entrepreneur in the first place? Kirby (2004) introduces a biological approach to the importance of schooling, specifically the left and right hemispheres of the brain. The left hemisphere is very systematic and logical, processing and operating in a step-by-step fashion. The right side of the brain is the opposite. It operates more in abstracts, asking how could this be done better, is the more than one answer, is very unconventional and the heart of the creative process (Kirby, 2004). Lewis (as cited Kirby, 2004) states,

"In class, students are expected to acquire knowledge one step at a time, adding methodically to their storehouse of facts until they have sufficient to pass an examination. This demands leftbrain skills. The problems students are given to solve more often demand an analytical than an intuitive approach. This, too...is a task for the left hemisphere. Written work, by which ability is chiefly evaluated, must be organized, well argued and logically

structured...all left-brain skills. The students considered most intelligent and successful are those who strive after academic goals, can control their emotions in class, follow instructions, do not ask awkward questions, are punctual and hand in class assignments on time. Goal-setting, emotional restraint, time-keeping and matching your behaviour to other people's expectations are all left-brain skills. Children are meant to learn by listening, keeping notes and reading books. All these, too, of course, are tasks in which the left hemisphere specializes".

Entrepreneurs are risk takers and innovators. They find a need that needs to be filled and they fill it. According to Lewis and Kirby, these are the skills developed by the right side of the brain. If the left side of the brain is the side that is being worked and trained throughout years of schooling, can the skills required of entrepreneurs be developed and helped to flourish? The U.S. Census Bureau's publication of a 2012 survey of business owners provides some insightful information regarding education. The proportion of business owners with no high school diploma up to some college experience but no degree, including vocational and trade schools, is nearly equal to business owners with associates degrees up to professional degrees at 46.7% to 53.3% (U.S. Census, 2012). Going back to what makes an entrepreneur, we can see that risk taking, passion, and mindset are important factors in entrepreneurship. Can passions be uncovered and techniques to conquering mindset be learned? It can, but finding a passion and training your mind to think cannot be dominated through sitting at a desk. One must experiment to find a passion and continuously pour what they intend for their mind to focus on.

Results

After analyzing the sources aforementioned and taking into account the validity of each, it can be seen that both nature and nurture sides have good arguments, even good arguments pertaining to the same issues. The floor is also evenly split among professionals and entrepreneurs alike, many believing some will never have what it takes and others believing anyone has what it takes. Even the relevance of schooling is questionable depending on the what the end goal is. If the goal of receiving formal secondary education after high school was to either make raising start up capital easier or improve the chances of making more money in an endeavor, extra schooling can be justified. However, if the goal were to improve the chances of becoming an entrepreneur or developing the characteristics outlined earlier, it is unlikely the schooling would be an advantage. With examples of entrepreneurs succeeding without collegiate schooling such as Bill Gates, Steve Jobs, and Mark Zuckerberg, trying to prove formal secondary education is absolutely vital is a losing battle. The burden falls to the opinions of people because, “as a man thinketh, so is he.” An article by Will Yakowicz, published in 2016, outlines an interview he conducted with a panel of prominent entrepreneurs. Before the panel discussion, the audience was polled on whether they believed entrepreneurs were born or made. 54% believed entrepreneurs were born, 46% believed entrepreneurs can be made. After the discussion, in which many of the points of this article were discussed, the audience was polled again with the results being evenly split 50-50. Since no information is provided, we will assume an audience size of 100 people. A McNemar test results in a p value of 0.683, which at the significance level of 0.05, we would fail to reject the null hypothesis that opinion is split down the middle. Even with an audience size of 2000 people, the null hypothesis would still be

rejected. Given the venue, it is fair to assume the attending audience would be far less than 2000 people.

Limitations

With such a large and exciting focus such as this, there are many limitations to this paper. The time frame in which this study was conducted was much too short given the nature of the subject. Since this topic has a very large psychological component, many experiments and a large amount of financial backing would be needed. A multi-year observational and experimental study would be needed to come close to accurately reaching anything near a conclusive answer on the nature vs. nurture debate regarding entrepreneurs. Due to this, there is not much quantitative research on this topic compared to topics less psychological. There is also a significant lack of data on failed entrepreneurs in this study, most of the data comes from those who have never entered into an enterprise or those who are already successful.

Conclusions

This systematic review of relevant literature was meant to outline both sides of the argument as well as point out some pros and cons of education when it comes to entrepreneurship. The purpose was to compile information so future prospective entrepreneurs could make an informed decision on whether or not they have what it takes. While there are compelling arguments on the “born” side of the arguments such as the role genetics play in risk aversion and personality types, something can be said for the “made” side as well. Determination

and persistence are key in entrepreneurship and hard work can overcome many shortcomings someone may have. It is also of note that schooling can play a significant role in the physical and monetary success of an entrepreneur. Hopefully there is more extensive and conclusive research done on this in the future, with a focus on providing quality, unbiased information, of which there currently seems to be little.

References

- Åstebro, T., Herz, H., Nanda, R., & Weber, R. (2014). Seeking the Roots of Entrepreneurship: Insights from Behavioral Economics. *The Journal of Economic Perspectives*, 28(3), 49-69. Retrieved from <http://www.jstor.org/stable/23800575>
- Biz Journals. (n.d.). *Are Entrepreneurs Born or Made?* Retrieved from Biz Journals: <https://www.bizjournals.com/twincities/pulse/poll/are-entrepreneurs-born-or-made/20570132>
- Blanchflower, D., & Oswald, A. (1998). What Makes an Entrepreneur? *Journal of Labor Economics*.
- Cesarini, D., Dawes, C., Johannesson, M., Lichtenstein, P., & Wallace, B. (2009). Genetic Variation in Preferences for Giving and Risk Taking. *The Quarterly Journal of Economics*, 124(2), 809-842. Retrieved from <http://www.jstor.org.iris.etsu.edu:2048/stable/40506244>
- Daley, Jason. (2013, September 19). Are Entrepreneurs Born or Made? *Entrepreneur*. Retrieved from <https://www.entrepreneur.com/article/228273>
- Dawson, Freddie. (2014, December 25). Are Entrepreneurs Born Or Made? *Forbes*. Retrieved from <https://www.forbes.com/sites/freddieawson/2014/12/25/are-entrepreneurs-born-or-made/2/#72a2709e45dd>
- Fernandes, P. (2019, February 19). *Entrepreneurship Defined: What It Means to Be an Entrepreneur*. Retrieved from Business News Daily: <https://www.businessnewsdaily.com/7275-entrepreneurship-defined.html>
- Gannet, Allen. (2012, March 10). Entrepreneurs are Born. *TheNextWeb*. Retrieved from <https://thenextweb.com/entrepreneur/2012/03/10/entrepreneurs-are-born/>
- Gompers, P. A., Kovner, A., Lerner, J., & Scharfstein, D. S. (2006). Skill vs. Luck in Entrepreneurship and Venture Capital: Evidence from Serial Entrepreneurs. Retrieved from <https://ssrn.com/abstract=933932>
- Grant, H. (2013, February 19). *Yes, You Can Learn to Sell*. Retrieved from Harvard Business Review: <https://hbr.org/2013/02/yes-you-can-you-learn-to-sell>
- Helmstetter, S. (1986). *What to Say When You Talk to Your Self*. New York: Pocket Books.
- Hill, N. (1937). *Think and Grow Rich*. New York: Ballantine Books.
- Hornik, D. (2010, September 20). *Isn't "Hypomaniac Entrepreneur" Redundant*. Retrieved from Venture Blog: <https://www.ventureblog.com/2010/09/for-a-long-time-i-have-talked-about-the-fact-that-all-of-silicon-valley-is-hypomaniac-and-im-not-the-only-one-who-thinks-it.html>

- Johansson, A. (2016, March 30). *Is Successful Entrepreneurship Nature or Nurture? It's Both. But Not Really.* . Retrieved from Entrepreneur: <https://www.entrepreneur.com/article/272973>
- Kanapi, H. (2017, July 30). *15 Entrepreneurship Statistics That You Should Know.* Retrieved from Fit Small Business: <https://fitsmallbusiness.com/entrepreneurship-statistics/>
- Kirby, D. (2005). Entrepreneurship Education: Can Business Schools Meet the Challenge? *Education and Training.*
- Kiyosaki, K. (2010, September 23). *The Four Keys to Raising Capital.* Retrieved from Entrepreneur: <https://www.entrepreneur.com/article/217347>
- Littauer, M., & Littauer, F. (2006). *Wired That Way.* Ada: Revell.
- Long, H. (2016, September 8). *Where are all the startups? U.S. entrepreneurship near 40-year low.* Retrieved from CNN: <https://money.cnn.com/2016/09/08/news/economy/us-startups-near-40-year-low/>
- Matthews, G., Deary, I. J., & Whiteman, M. C. (2003). *Personality Traits 2nd ed.* New York: Cambridge University Press.
- Nicolaou, N., Shane, S., Cherkas, L., & Spector, T. D. (2009). Opportunity recognition and the tendency to be an entrepreneur: A bivariate genetics perspective. *Organizational Behavior and Human Decision Processes*, 110, 108-117.
- Nicolaou, N., & Shane, S. (2013). Biology, Neuroscience, and Entrepreneurship. *Journal of Management Inquiry.*
- Osbourne, Shawn. (2016, May 16). The Power of Mentoring and Entrepreneurship. *Fox News.* Retrieved from <http://www.foxnews.com/us/2016/05/16/power-mentoring-and-entrepreneurship.html>
- Parker, S., & Van Praag, C. (2006). Schooling, Capital Constraints, and Entrepreneurial Performance: The Endogenous Triangle. *Journal of Business & Economic Statistics.* Retrieved from <http://www.jstor.org/iris.etsu.edu:2048/stable/27638893>
- Pompa, M. (n.d.). *30 Inspirational Entrepreneurs Quotes to Motivate Them for Greatness.* Retrieved from Big Commerce: <https://www.bigcommerce.com/blog/quotes-for-entrepreneurs/>
- Rampton, John. (2018, January 30). 11 Things Very Successful People Do That 99 Percent of People Don't. *Entrepreneur.* Retrieved from <https://www.entrepreneur.com/article/308231>
- Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success. A general model and an overview of findings. In C.L. Cooper & I.T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (pp. 101-142).
- Schwartz, D. J. (1959). *The Magic of Thinking Big.* New York: Touchstone.

- Segal, G., Borgia, D., & Schoenfeld, J. (2005) The motivation to become an entrepreneur, *International Journal of Entrepreneurial Behavior & Research*, Vol. 11 Issue: 1, pp.42-57. Retrieved from <https://doi.org/10.1108/13552550510580834>
- Shaver, K. G., & Scott, L. R. (1992). Person, Process, Choice: The Psychology of New Venture Creation. *Entrepreneurship Theory and Practice*, 16(2), 23–46. <https://doi.org/10.1177/104225879201600204>
- Strauss, K. (2015, January 21). *What Makes An Entrepreneur?* Retrieved from Forbes: <https://www.forbes.com/sites/karstenstrauss/2015/01/21/what-makes-an-entrepreneur/#5f73934c5238>
- Suster, Mark. (2010, March 1). Entrepreneurship: Nature Vs. Nurture? *Business Insider*. Retrieved from <http://www.businessinsider.com/entrepreneurship-nature-vs-nurture-2010-3>
- Taylor, Leslie. (2006, October 24). Are Entrepreneurs Born or Made? *Inc*. Retrieved from <https://www.inc.com/news/articles/200610/born.html>
- U.S Census Bureau. (2012). [Graph data of survey done on small business owners, education, ethnicity, etc in 2012]. Statistics for Owners of Respondent Firms by Owner's Educational Background by Gender, Ethnicity, Race, and Veteran Status for the U.S.: 2012. Retrieved from <https://www.census.gov/data/tables/2012/econ/sbo/2012-sbo-characteristics.html>
- Van Andel, Steve. (2014, November 18). Are true entrepreneurs born and not made? *CNBC*. Retrieved from <https://www.cnbc.com/2014/11/18/are-true-entrepreneurs-born-and-not-made.html>
- Van der Loos, M., Koellinger, P., Groenen, P., & Thurik, A. (2010). Genome-Wide Association Studies and the Genetics of Entrepreneurship. *European Journal of Epidemiology*. Retrieved from <http://www.jstor.org.iris.etsu.edu:2048/stable/25621625>
- Van Der Sluis, J., Van Praag, M., & Vijverberg, W. (2008). EDUCATION AND ENTREPRENEURSHIP SELECTION AND PERFORMANCE: A REVIEW OF THE EMPIRICAL LITERATURE. *Journal of Economic Surveys*, 795-841.
- Vaynerchuk, Gary. (2016) THE ENTREPRENEURIAL SPIRIT: ARE ENTREPRENEURS BORN OR MADE? *Garyvaynerchuk.com*. Retrieved from <https://www.garyvaynerchuk.com/the-entrepreneurial-spirit-are-entrepreneurs-born-or-made-2/>
- Wadhwa, Vivek and Holly, Krisztina and Aggarwal, Raj and Salkever, Alex. (2009). Anatomy of an Entrepreneur: Family Background and Motivation. *Kauffman Foundation Small Research Projects Research*. Retrieved from SSRN: <https://ssrn.com/abstract=1431263>
- White, R. E., Thornhill, S., & Hampson, E. (2006). Entrepreneurs and evolutionary biology: The relationship between testosterone and new venture creation. *Organizational Behavior and Human Decision Processes*, 100, 21–34.
- White, R. E., Thornhill, S., & Hampson, E. (2007). A biosocial model of entrepreneurship: the combined effects of nurture and nature. *Journal of Organizational Behavior*, 451-466.

Yakowicz, Will. (2016, September 19). Are Entrepreneurs Made or Born? *Inc.* Retrieved from <https://www.inc.com/will-yakowicz/serious-business-entrepreneurs-made-or-born.html>

Zhang, Z., Zyphur, M., Narayanan, J., Arvey, R., Chaturvedi, S., Avolio, B., . . . Larsson, G. (2009). The genetic basis of entrepreneurship: Effects of gender and personality. *Organizational Behavior and Human Decision Processes*, 93-107.