

Momentum and Success

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$P = MV$ - momentum equals mass times velocity. My physics teacher Scott Rippetoe taught that to me while I was attending the Academy of Science and Technology, and it has remained with me ever since. These days I think about momentum frequently, but not in the sense that I learned originally. The equation has taken on a new dimension for me. In life, one's momentum is proportional to one's velocity. Ironically, I am normally staunchly opposed to subsuming physics principles into philosophy. For instance, I imagine Newton turning in his grave every time someone pronounces, "For every action there is an equal and opposite reaction" as a metaphor for the concept of karma rather than simply saying "serves you right." However, the more experience I gain, the more I have come to believe and promote the idea one's success in life is a result of one's momentum.

What does this mean? Simply, success begets success and opportunity begets opportunity. This principle is something that I see at work in my own life. Currently, I have a job that I love with responsibilities that challenge and excite me. I work as product manager in a sales organization at Google. It is my dream job. However, I had applied to work for Google six years ago and they would not even give me the time of day. It was not until after I had attended Harvard Business School that I was able to convince Google that I would be a good candidate for employment. What changed? While I may now have more experience, my raw intelligence and talent has remained roughly the same these several years. I have wondered why I was "acceptable" this time but deemed "unacceptable" previously.

The answer to this perplexing question was something I learned in one of those epiphany moments during a class discussion at Harvard

Business School. The discussion topic was "Are stars made or are they born?" and we debated amongst ourselves as to whether people are born with the characteristics they need for success or whether people are groomed for success. The discussion was lively, the arguments were well reasoned, but the answer was elusive.

Prior to this discussion, I believed that stars were born; they were the product of hard working individuals in a culture of meritocracy where their talents allowed them to bubble to the top. However, after this eye-opening discussion, the answer was no longer quite so simple. I started believing that talent and hard work are necessary, but not sufficient, elements found in stars. No matter how talented or hard working someone might be, unless other people recognize that talent and hard work, that person will not become a star. Unfortunately, it is not humanly possible to accurately measure and judge the true talents and efforts of every person in any sizable organization. Because of this, people often rely on shortcuts for estimating a person's talents and efforts. Things like education, awards, job titles, etc. serve as crude proxies for determining one's talents and efforts. Other, supposedly better, measures of a person's talents and efforts such as peer feedback, performance metrics, and self-evaluations, are still inaccurate shortcuts to ascertaining someone's true talents, abilities, and efforts. In other words, in order to be recognized as a star, one must also excel at the artificial measures by which stars are assessed.

Anyone who has taken an SAT understands this principle. The SAT is not a true measure of a person's intelligence; rather, it is a proxy for intelligence used by colleges to sift through the myriad of applications they receive. By extension, if a

good SAT score gets a person into a good college, and a good college gets that person into a good job, then the ability to get a good job depends on one's ability to perform well on a test that is merely a crude approximation of one's intelligence. In other words, success (a good test score) begets success (entrance into a good college) begets success (attaining a job at a good company).

The phrase "on the fast-track" is another manifestation of this principle. Organizations have long recognized the difficulty and expense required to groom a person for succession. As such, rather than spreading this training across all employees, organizations focus their training on a few handpicked individuals. This training consists of giving these selected individuals successively larger responsibilities, which provides the rising star the necessary training ground for acquiring the skills needed for even greater responsibilities. In other words, opportunity (getting on the fast track) begets opportunity (getting a large responsibility) begets opportunity (getting an even larger responsibility).

So how does one get started on the fast track? How does one acquire the first precipitating success? As I reflect back to my own experiences, I can see that my initial opportunities and successes are things that I acquired over fifteen years ago even while I was still attending the Academy of Science and Technology. As I mentioned earlier, I currently have a dream job that I was unable to attain without first attending Harvard Business School. Harvard Business School took a chance on me because they saw a list of jobs and job titles at well-recognized organizations, like Oracle and Goldman Sachs, on my resume. My opportunities at those organizations were not possible without my education from an excellent Computer Science program at Carnegie Mellon University. Getting into Carnegie Mellon's Computer Science program was enabled by my experiences at the Academy of Science and Technology. Since admittance into top colleges requires that applicants differentiate themselves with something unique from the rest of the crowd, spending four years at an accelerated program that focused on science and technology provided

that necessary differentiation. Moreover, my experiences at the Academy of Science and Technology enabled me to not only survive but also thrive in the subsequent years, and provided the necessary first successes and first opportunities I needed to get started on the fast track.

One example of opportunities begetting opportunities is the experience I had at the Academy to practice my programming skills. The Academy served as a great training ground for what would eventually become my major area of study and employment. At the Academy, I was provided with a sound foundational education in computer programming, and then I was allowed the freedom to explore programming. I remember fondly the time when we learned in class about a certain programming technique that allowed me to write a program that I installed on a friend's school machine. This program would drop key presses if typed too quickly. This would annoy my friend, as it would seem that the keyboard was broken when he typed normally, but would work fine when he was trying to demonstrate the problem to other people due to his slower typing speed during his demonstrations. My laughing quickly gave me away as the culprit. I undid my nefarious test, and I was spared any stern rebuke for I had creatively implemented a principle taught in class.

The encouragement to try new things can only be done in an environment like the Academy where the teachers know their students well. Having the opportunity to hone my programming skills during my high school years enabled me to be one of the most proficient programmers during college. My experience and abilities in programming was immediately recognized by my classmates, and I was able to be selective on whom I would select as lab partners. Being able to work with the best peers provided me with the opportunity to learn from and network with other top programmers. Having the opportunity to work with the best meant my homework scores were always at the top of the class. Having the best grades at school opened up even more opportunities to work with the best people as well as a wide variety of research and job opportunities.

One example of success begetting success comes from my experience at the International Science and Engineering Fair, where I took first place in the Biotechnology division. I could never have succeeded here had it not been for the training and mentoring I received at the Academy. Not only did the Academy teach me the underlying science upon which the project was based, but also the soft skills associated with presenting the research that are necessary for selling the importance of the research. Winning the science fair enabled me to work on an impressive research project team during my undergraduate years, which led to several research co-publications. These publications, in turn, provided me with several exciting job offers.

Momentum is a powerful force. Once one's velocity has been established, the momentum behind that person will continue to push him or her along to greater and better opportunities and successes. I am so grateful for the Academy of Science and Technology for making sure that I left my high school experience at maximum velocity.

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