

We like to think that we are all individuals who make decisions purely on our own desires, but we forget is where those desires originate. Personality, while genetics may play a role, is derived primarily from our environment whether it is by our peer, economics, or the influence of large social institutions. When we look at our own aspirations and relationships it's important to consider the effects of outside forces. For this paper I would like to focus on the forces that went into my professional aspirations and how social forces lead me towards civil engineering.

Gender is one of the first social construct we start following after birth and continue following later in life. For western countries and a majority of heavily christian societies gender and sex are interchangeable terms, so our gender is often decided before we're even born. Due to the nature of gender in the western world it is also very difficult to deviate from our gender. As young children gender is reinforced primarily through toys and decorum. For me gender norms meant my parents bought me play cars, trains, and even a battery operated mock mining facility, because as male it's assumed I like machinery. Due to the fact that technical centered toys are generally accepted as a masculine interest a disproportionate number of males compared to females develop early interest in science and engineering. In my case the toys I played with as child did make me more interested in learning about science and technology.

It's important when telling how gender roles have affected me that I also compare its effect on my sister since she was raised at nearly the same time with the same family structure. Despite our family being fairly liberal we had very different home lives which supported eachothers gender identity. Her room was painted a bright pink, strune with dolls

and other creatures designed to reinforce sociability and the nurturing nature. For a long time divergent interest separated us, though we shared the same disdain for youth athletics. Later we would find common interest in adult humor and politics, but its clear that we're separated by events earlier in life. There is no doubt that more than entertainment and decorum has gone into how gender forces have shaped my sister, from the stories she tells, but they certainly helped reinforce the prestige of being nurturing. Being only a year older she is currently a second year pursuing a teaching career.

Stigma around who plays video games has been starting to decrease over the last decade, sexism and gender distribution still aren't perfect, however it's quite possible that the effects could be negligible within a few years. For me aswell as a disproportionately large male population there are video games, just as literature, that have in some way influenced our childhood. While there has been many influential games in my life the Simcity series is in large part responsible for my interest in structural engineering. Were I not a part of the targeted demographic for the video game industry it would have been more likely that I would have gone into a different engineering field such as biomedical or chemical.

Another large effector that's often overlooked isn't what I'm influenced to do, but peoples comments on what I enjoy doing. As a privileged class most comments are positive reinforcements ,other than when I tried baking certain things were considered wrong due their femininity. Building with legos or sand were my favorite activities when I was younger. I could spend the entire day at the beach out side of the water building ever gander castles or unite all of my siblings to build a intricate tower that may take over a

week to create, but never once were my designs complement on aesthetics, or how pretty they were, instead it was always about the mathematics and their technical achievement. After a while my focus started to shift more and more towards making structures that challenged the limits of each material ignoring aesthetics, and other unimpressive characteristics of the arts. Some of this comes out of societies value attributed skills, but my sister who often participated in these often didn't receive the same level of praise and was given more praise than I when watching my younger brother.

While not every person reacts the same to gendered social forces and not everyone experiences the same amount of pressure, most people I've know and a majority of americans that have been study share similar experiences. As a result of various gender norms STEM, (science technology, engineering, mathematics) fields are still highly segregated, engineering alone has only about 21% female participation. There's a number of reasons people think there's continued segregation like academic focus, life goals, and the nature of working in a STEM field. However after further exploration a study from Columbia University revealed that after mathematics scores started to even out in the nineties participation of females remain stagnate. Another hypothesis proven wrong was that life goals separated men and women. Desire to start a family instead of focusing on work, which is still commonly considered a feminine trait, has little effect on whether or not someone enters a STEM field. Life goal causality can also be proven false by the level of gender integration in other professional degrees such as law or medicine. What was found to actually affect whether not someone joins a STEM career were at what time interest developed, and verbal skills, which women statistically perform better in, make other

majors more competitive. Both these reasons shown to affect profession interest relate to effects I've felt in my own personal experiences that made it more for me to pursue an engineering degree. (Mann, p 1530-1539)

Of course gender was not the only social pressure I've experienced growing up. As my life became more publicly involved the educational system and economic institutions started to make social class an important part of my professional goals. I'm from a middle class family that did fairly well until about the time the united states went into economic recession. During this time my mother, who worked as engineer in a large compressor company, was forced to take pay cuts and time off. It was difficult to focus during this time since my mother was the major breadwinner of our house. Subjects I was historically bad at in school suffered the worst, especially literature. This period eventually ended after my mother switched to another employer and my step father was promoted, but because of this period I was never placed in any higher level learning till high school effecting the likelihood of joining a language centric field. It could have been worse though, looking at one of my closest friends from elementary school, after his household fell into deep poverty. While fears about future were small enough to only distract me from some course work, but my friend slowly lost feelings of security as he bounced from house to house and after a while he eventually made him lose value in future investment. The educational system did little to assist him get back on track, and instead pushed him along till changes in management suddenly dropped him back two years. This sudden shift lead him to drop out before graduating.

When the economic problems of our family ended I didn't come out with just the

negative reinforcements, which reduced the odds of me joining careers requiring high writing ability, but it also made careers which pay well and have geographic flexibility more desirable. Were I of higher class it's possible that I would have given less prosperous fields more thought, but instead I focused on more reliable fields years before coming to college. There could good from deciding my career path early in that I have a good idea of what's involved and stronger determination to finish something with one particular goal, but I'll never get a period of indecisiveness to find something else without risking resources I don't have.

Past interests and important times told of my life show how even the most minor of interactions can decide something as important as someone's career. Does this mean we are forced unhappily into these positions? Certainly not. So far this I love this career path and could think of no other that would truly suit me more. However this does not mean there is not another career that would be better for me were I raised in another social structure, or another that might become more attractive in a new adult structure.

Mann, Allison (2013) Trends in gender segregation in the choice of science and engineering majors, *Social Science Research*: Volume 42, Issue 6, November 2013, Pages 1519–1541