Lehigh University Convocation Address of August 27, 2017

Speaker: Professor Frank R. Gunter

Mayor Donchez, President Simon, Provost Farrell, distinguished colleagues, guests, and...

WELCOME LEHIGH UNIVERSITY CLASS OF 2021!

I was told that a convocation address should ask important questions so let's get started.

Sardines

Question 1: Why are sardines packed so tightly in cans? You can take the lid off and shake a can upside down and the sardines won't fall out. If air gets into a can of sardines then they spoil and make you sick. So, cans must be filled with sardines or olive oil. But why do firms pack sardines so tightly into cans?

All of you have enough information to answer this question. Some of you might have more than one possible answer.

Answer 1: Sardines are cheaper than olive oil. The more sardines, the less olive oil, the higher profits.

One who is skilled at what we used to call "thinking" but is now called "critical thinking" can answer this simple –simplistic - question fairly easily. One of the major benefits of a university is to develop your critical thinking capability. This capability is not valuable because it allows you to answer questions about sardines; it is valuable because it helps you not only earn a living but also live a good life.

Critical thinking has three stages:

- 1. Gather the appropriate knowledge
- 2. Analysis
- 3. Judgment

Knowledge usually comes first. However, for many questions, analysis will lead to a gathering of more knowledge that will lead to further analysis, a further gathering of knowledge, etc. But judgment must come after knowledge and analysis – not before. Judgment before knowledge or analysis is often stupid and sometimes dangerous.

Google

Over the last month, there has been a lot of controversy over a memo on diversity at Google written by James Damore – a former Google employee. When I heard of the controversy, the first thing I did was find the memo online and read it. I then started reading the editorials and blog posts about the controversy. It was very clear

that many/most of Damore's critics and defenders had not read his memo. Critics were condemning him and defenders were praising him for saying things that he didn't actually say. Such condemnations and such praise are stupid.

Of course, the Internet is a valuable source of information but it is often a poor source of knowledge. What is the difference between information and knowledge? Information is learning that a tomato is a fruit. Knowledge is knowing not to put tomatoes into a fruit salad.

The last step – the goal of critical thinking – is judgment. Judgment can be extremely challenging especially when it involves moral choices or judging people. Since judging people or making moral decisions – decisions about right and wrong – make many students uncomfortable, they often try to avoid making judgments by continuing knowledge gathering and analysis without end.

Question 2: Should the US government allow fracking for natural gas? Fracking is a complex process but usually involves the use of pressure to crack rocks to obtain oil and gas. It has created a revolution; US oil and gas production has increased so rapidly that oil prices have collapsed. Adjusting for inflation, oil was over \$100 per barrel in 1979, yesterday is was \$52 per barrel. But is fracking good or bad?

Fracking may pollute water – Fracking is bad.

In the short-run, relatively clean natural gas from fracking replaces dirtier coal – Fracking is good. But, in the long-run, natural gas will replace even cleaner nuclear energy – Fracking is bad North American energy independence because of fracking will reduce dependence on the Middle East and possibly reduce conflict – Fracking is good. Etc, etc, etc.

But many judgments can't be avoided.

Which candidate should you vote for Representative, Senator, Mayor, Governor, or President? Who should you propose marriage to? And should you accept? Should you change your major? Not a defeat but - if based on your best critical thinking – a victory! After Lehigh, working for a non-profit or profit organization, what should you do if your boss wants you to do something that is legal but possibly immoral?

It is important that you not allow yourself to be pressured to accept someone else's judgement. Rather than persuade you, other people will often encourage you to embrace an idea because it is held by a popular person. Or they may attempt to "shame and blame" you to abandon a position that resulted from your critical thinking because your reasoning or judgment is similar to that of a despicable person. Don't fall for this!

I once came to a conclusion – a judgment – concerning a current political issue. In the morning, I was told by one of my distinguished colleagues that my opinion was the same as that of the conservative Barry Goldwater and, in the afternoon of the same day, I was told that the same conclusion was held by the communist Karl

Marx. My response was: "Even a blind squirrel finds a nut every once in a while". I meant that even Goldwater or Marx might sometimes get a particular issue right but I think that my colleagues thought that I was a squirrel.

Three Ways

How can you improve your ability to think – to think critically?

FIRST, choose to live in a wider world.

Your roommate does a semester abroad in Shanghai, China in Asia or Gaborone, Botswana in Africa. When she or he returns, you ask them about the trip. Your roommate states that he or she stayed in the Hilton Hotel with US TV shows in the rooms and American breakfast in the dining room. In the evening, your roommate and a bunch of other American students would go the Hard Rock Café and then go dancing in club that played the songs that were popular in New York. They took tours with a guide who made all of the arrangements and told them what they were seeing. You roommate chose to live in a "American bubble" in China or Botswana.

You would probably be angry or sad that your roommate chose to live in a smaller – a more familiar – world. Your roommate chose not to learn about different ways of life.

Choosing to live in a wider world is often very uncomfortable. You will interact with professors, classmates, dorm mates, outside speakers, and others who think very differently and make very different judgments. You don't have to accept their judgments – it's OK to disagree. But the proper response at a University is not to attack or insult someone you disagree with but - using knowledge and analysis – persuade them. The proper response to speech you disagree with is not shouting or violence – the best response is speech. In fact, if a teacher or roommate shouts down your argument then that is usually a sign that your thinking is better than theirs!

The most interesting disagreements will be ones you have with your younger self. If you choose to live in a wider world then many of you will experience radical changes in your thinking over the four years at Lehigh. For example, you may now think of yourselves as being liberal and yet in four years thank yourself as a conservative or vice versa. If these changes make you uncomfortable then: "Welcome to the University!"

SECOND, read fiction.

Good fiction allows you to practice making moral choices without anyone getting hurt. Why not non-fiction? Because most good fiction is plausible. Non-fiction only has to be true – it doesn't have to be plausible. Why read? Because a novel allows a subtlety and complexity that is often far greater than other modes of communication whether songs, movies, or tweets.

Some of you have googled me and discovered that I spent 35 years of my life surrounded by young men with guns. During my career in the Marines, I went from commanding four other Marines in the mid 1970s to

commanding 6,000 Marines and sailors in a desert warfare training exercise in California after 9/11. During those decades, I was constantly faced with decisions. Many of the choices that were poorly defined – there was insufficient information. Often decisions had to be made quickly. And some of the decisions literally involved matters of live or death.

In retrospect, I made the right decision maybe 80% of the time. And other people paid the price of my bad decisions. But without C.S. Forester, my success rate would have been a lot lower – maybe 50% - and the damage much greater.

C.S. Forester was a novelist who was very popular in the 1950s. His characters constantly faced moral and leadership choices and in his novels, you could see how those choices played out, see whether the choices had favorable or unfavorable effects in the long-run.

I'm not saying that you all go out and start reading C.S. Forester. What I am saying is find a fictional writer that deals in moral choices, that speaks to you, and ideally writes of a very different time or place. Maybe Jane Austin – in my judgment, the second-best writer ever in English. Maybe Heinlein, Hemingway, Fitzgerald, Achebe or even Charles Dickens. And then read as much of this author's work as you can. Read slowly and with thought. Why did the character make that choice? Would I have made the same choice?

Before I leave this section - let me provide a warning. If you are in one of my classes and tell me that the fictional character Mrs Jellyby from Dickens novel Bleak House is your moral guide then I will fail you!

THIRD, practice critical thinking.

A teenager doesn't go from kicking a ball around at age 14 to playing for Manchester United at age 15. From starting violin lessons at age 10 to becoming First Violin for the New York Philharmonic at age 11. From getting an A in my Principles of Economics course at age 18 to becoming a member of the Board of Governors of the Federal Reserve at age 19.

These kinds of success require years of practice with steadily increasing difficulty. The same thing is true about critical thinking.

When your Lehigh Professor asks you questions like:

Question 3: Why did the Union win the Civil War when the Confederacy had better generals?

Question 4: Macbeth and Henry VIII are both Shakespeare plays about kings. Why is Macbeth a better play?

Question 5: The Second Law of Thermodynamics says that total entropy can only increase over time in an isolated system. Therefore, how likely is it that we will have contact with intelligent life from other planets?

Your Professor doesn't think that after you leave Lehigh to work for Google, Chase, or Red Cross/Red Crescent, you will be confronted on your first day of work with issues involving the Civil War, Shakespeare, or entropy. Rather these are exercises in critical thinking. Approached with serious thought, these exercises can improve your ability to think critically – to make better judgments – to live a better life.

Life in Unfair

Life is not a multiple-choice exam. Critical questions in life are rarely scheduled in advance, based on assigned readings and lectures, and there is no guarantee that the correct answer is A, B, C, or none of the above. Life is often unfair. You will sometimes be forced to make life-changing decisions with no prior warning. And, what is worse, if you realize later that you made the wrong decision, you may not be able to correct it.

I am not your parents' age, I am as old as your grandparents. When I wake up at 3 AM with a nightmare, it is not because I am being chased by a dragon from Game of Thrones, or being chased by 1920s mobsters with machine guns, or even being chased by dragons with machine guns. No, my worst nightmares are when I am dreaming about a bad judgment, a bad decision that I made ten years or forty years ago. I realize now that if I had been better at critical thinking then I might have avoided some of those bad decisions. Such are the regrets of the old.

Summary

Let me summarize before President Simon has campus security drag me off the stage.

Critical thinking is important.

It has three key elements: knowledge, analysis, and judgment.

You can improve your capability of critical thinking by

Choosing to live in a wider world Read good fiction Practice

Your four years at Lehigh University should be one of the great adventures of your life. It will change you – hopefully for the better. Hopefully it will help you live a good life.

I started with a question about sardines that most could answer in a few minutes. I will end with a question that requires difficult critical thinking and may take four years or the rest of your life to answer.

Last question: What is a good life?

WELCOME TO LEHIGH, CLASS OF 2021!

Frank R. Gunter PhD Professor of Economics Senior Fellow of the Foreign Policy Research Institute Colonel of Marines (Retired) frg2@lehigh.edu