

Advice to a Young Lady on the Choice of a Major

Dear Coco,

It gave me great pleasure to receive news of your exceptional results. You have made your family proud: we have always excelled at intellectual pursuits, and you, the oldest in your generation under your grandfather, have set a fine example to your cousins – without deliberately intending to, I'm sure, and that's the right way to do it.

Now that university beckons, I wish to offer a word of advice; a preface, if you will, to the next chapter of your life.

The time I could devote to this letter was limited, so please forgive me if it is too long; as Pascal (or Pliny) said, I lack the time to make it shorter.

First, a cautionary tale. A distant cousin-in-law of mine recently graduated from university. In her family, as in so many families in Singapore, the memory of poverty is vivid and recent; so she was encouraged to take up a profession generally felt to be reasonably lucrative and extremely dependable.

As a result, at university she spent three years studying accounting.

Three or four years more school must seem to you, now, like an eternity, particularly if schooling is not an end in itself but a means to an end. It is easy for students to feel like their lives have not yet begun: that whatever they are doing now is just a prerequisite for something else. Some people live lives of gratification deferred *ad infinitum*. They spend their weekends being tutored in subjects they don't like so that during the week they will do well in classes that get them into universities they don't want to attend, where they will take a major they don't care for so that they can qualify for a job that they don't want to work at, but which pays them enough to buy things whose possession brings them no joy.

But that is a rant for another time.

My cousin-in-law duly graduated and took a job in an accounting firm. Three months later she realized she hated working as an accountant. She quit. Now she's wondering what to do next.

*the disappointments of
choosing the wrong career*

This was a failure of the society that raised her: schools consume half the waking hours of citizens aged six to eighteen. During those twelve years they utterly fail to educate them in the most important questions of all: "Who am I? What makes me happy? How should I live my life?"

You would imagine that in return for restricting one's liberty for most of one's life, a school would at least offer some guidance regarding the pursuit of happiness; but no. Most don't. The ones that do are exceptions.

Don't get me wrong: I'm not saying that at eighteen you should know what you want to do with your life. In fact, any specific answer at that age is unlikely to be useful: few eighteen-year-olds have a meaningful sense of what their options are. This is partly because they have very little visibility into what grown-ups actually do when they're at work.

This is another failure of society. During the day, we hide parents from their children, so kids gain no exposure to the practices and culture of a career; every generation has to figure out for itself how to behave at work, how organizations run, how to manage, and how to manage being managed. These things are not taught in school. By default, school prepares you to be a professor, not a professional. Generally we conspire to treat adulthood like a secret, to be withheld even more fervently than swearing, or the facts about Santa Claus. So young people get their ideas about work from the media, which emphasize conflict and dysfunction for the sake of drama.

adulthood poorly modelled for the young

Perhaps the mistake my cousin-in-law made was to decide, at your age, that accounting was the best choice for her.

What should she have done?

Maybe she should have put off the decision.

Maybe she should have taken a more general degree.

Unfortunately for her, Singapore streams early. Under the British system, you decide at nineteen whether you want to be a lawyer, a doctor, an engineer, or whatever. I prefer the American system, where law and medicine and business are postponed to grad school.

British versus American systems

So now she's feeling stuck and bitter. Rightly so.

If you find yourself in a bad spot, one into which all of society has seemingly conspired to place you, then bitterness is a perfectly understandable response.

Finding out after university that you've been set up for the wrong career is one such spot for bitterness. Not that you can't get out of it, but it's still a tough spot to be in.

Here's another. I call it

The Retirement Problem.

Most people have the problem of having more goals than resources. They want to buy a car, but haven't got the money. So they work, and they save, and they get the car, and now want a house. And so it goes.

Sooner or later, many people retire from this life of deferred gratification. And many retirees find themselves with the opposite problem. They have more resources than goals.

Imagine that you could do anything you wanted.

Now imagine, also, that you didn't know what you wanted.

That's what I call the retirement problem.

They've spent all their lives doing what they have to, so they can do what they want to. But it's been so long, they can't remember what it is!

There is a solution to the retirement problem. It has been known for a very long time. The problem was first discussed in earnest more than two thousand years ago by the ancient Greeks.

The Greeks gave us the word “ethics”. Most laypeople understand “ethics” to mean “doing the right thing”, and silently append the words “even when you wouldn’t get caught doing the wrong thing”.

ethics versus morality

But ethics goes beyond morality; morality is about right and wrong, but ethics is about living the good life, in the broadest possible sense.

Ever eaten too much greasy food, so that later you felt bloated and gross? Unethical.

Ever drunk too much Coke, so that the sugar crash made you irritable and sleepy? Unethical.

Hangovers? Unethical.

Even if you were the only human being on the planet, you could still be ethical. Living the good life is by definition worth doing for its own sake. It just happens that doing right by other people – being moral, in other words – fits neatly into the ethical life.

But I don’t want to get sidetracked into moral philosophy. It’s a huge subject, and I can’t do it justice in a couple of paragraphs, and the point I’m trying to make is tangential to all of that anyway.

Six centuries ago, the intellectual descendants of Plato and Socrates distinguished between the *artes liberales* and the *artes illiberales*.

liberal arts versus the vocational arts

The expression *artes liberales*, chiefly used during the Middle Ages, does not mean arts as we understand the word at this present day, but those branches of knowledge which were taught in the schools of that time. They are called liberal (Latin *liber*, free), because they serve the purpose of training the free man, in contrast with the *artes illiberales*, which are pursued for economic purposes; their aim is to prepare the student not for gaining a livelihood, but for the pursuit of science in the strict sense of the term, *i.e.* the combination of philosophy and theology known as scholasticism.

<http://www.newadvent.org/cathen/01760a.htm>

Slaves were expected to be useful. They did the dirty work, the grunt work, the boring work: they cooked, they cleaned, they laboured, they worked the jobs which free men didn’t want. They were bought and sold. They were purely economic beings.

Free men, by contrast, did what they wanted.

(This is a gross oversimplification. The truth is considerably more complex; free men weren’t completely free of economic constraints, and I’m sure plenty of them had to work when they’d rather be doing the medieval equivalent of watching TV; but allow me some poetic license for a moment.)

Let’s pretend that free men were all like the upper classes of the Victorian era: they inherited an income and didn’t have to work. In a sense they were born retired. Not having to work, they occupied their time with other things.

The *artes liberales* prepared them for that. Appreciation of painting, sculpture, music, drama: of the finer things in life. If they wanted to spend their lives painting, or writing plays, or composing music, they could. They could participate in the life of ideas as a creator and a critic.

liberal arts intended for the liberated life

The *artes illiberales*, by contrast, were strictly vocational. With an education in accounting, or engineering, or farming, you were qualified to spend your life working, being useful to someone else. When you engage fully in the economic system you end up defining yourself by your salary.

In today's world, the roles are commingled: most of us are free, in the sense that nobody owns us, and we get paid for the fruits of our labours. But in a different sense, most of us are also slaves, because we have to work to pay the bills.

So let me take the "free man" of the past, the student of the *artes liberales*, as an admittedly imperfect analog of today's "independently wealthy", or "retired".

free men likened to the independently wealthy

What does this have to do with you? The connection is simple.

If and when, one day, you retire independently wealthy, you will ask yourself, "now that I can do anything I want, what do I want to do?"

A liberal arts education furnishes your mind with the equipment needed to answer that question. A vocational education does not.

A vocational education trains you to do good work.

A liberal education trains you to be a good person.

Related to the liberal arts are the humanities. What are the humanities about? Their ultimate subject of study is (duh) the human being: its successes and failures, its foibles and tendencies, its recurring patterns in groups large and small.

See also
<http://www.virtualsalt.com/libarted.htm>

A good software engineering student should be able to build good software.

A good humanities student should be able to build a good human.

the goal of a humanities education

That human could be you, or your children, or some completely unrelated other. And once you have built that good human, she should be able to inspire, to lead, to attract followers – in business or in politics or in changing the world. Those are the hardest challenges.

It was no coincidence that the free men of ancient Greece and Rome were the ones asked to lead their armies to war. Vestiges of that notion can be found in the history of the titled nobility of Europe.

Of course, in this blended world, the choice between the *artes liberales* and the *artes illiberales* is not binary. As Heinlein wrote,

A human being should be able to change a diaper, plan an invasion, butcher a hog, conn a ship, design a building, write a sonnet, balance accounts, build a wall, set a bone, comfort the dying, take orders, give orders, cooperate, act alone, solve equations, analyze a new problem, pitch manure, program a computer, cook a tasty meal, fight efficiently, die gallantly. Specialization is for insects.

– Lazarus Long, *Time Enough For Love*

There is no contradiction in a free man having mastery of the *artes illiberales*. Similarly, the highest form of any vocation converges with the *artes liberales*.

do not limit yourself to the liberal arts, but learn all useful arts

But anyone whose education stops at the vocational will run into serious difficulty when they retire.

Is the Trivium, then, a sufficient education for life? Properly taught, I believe that it should be. At the end of Dialectic, the children will probably seem to be far behind their coevals brought up on old-fashioned “modern” methods, so far as detailed knowledge of specific subjects is concerned. But after the age of fourteen they should be able to overhaul the others hand over fist. Indeed, I am not at all sure that a pupil thoroughly proficient in the Trivium would not be fit to proceed immediately to the university at the age of sixteen, thus proving himself the equal of his medieval counterpart, whose precocity often appears to us so astonishing and unaccountable. This, to be sure, would make hay of the public-school system, and disconcert the universities very much – it would, for example, make quite a different thing of the Oxford and Cambridge boat-race. But I am not now considering the feelings of academic bodies: I am concerned only with the proper training of the mind to encounter and deal with the formidable mass of undigested problems presented to it by the modern world. For the tools of learning are the same, in any and every subject; and the person who knows how to use them will, at any age, get the mastery of a new subject in half the time and with a quarter of the effort expended by the person who has not the tools at his command. To learn six subjects without remembering how they were learnt does nothing to ease the approach to a seventh; to have learnt and remembered the art of learning makes the approach to every subject an open door.

– Dorothy Sayers, *The Lost Tools of Learning*

liberal arts considered to be the foundation of all further study

I expect that your schools have, in fact, delivered such a curriculum: that its graduates have learned how to reason and learned how to learn. Thus armed, you should have no difficulty with any subject: in fact, your extraordinary intelligence presents the greatest challenge to the choice of a career, because all paths may appear equally easy, though they may not all be equally suitable.

Just as you are about to tour Europe, it is possible to tour the fields. If you like to build things in response to specifications, try engineering. If you prefer to specify for others to build, try design. If what most excites you about building is the idea of conducting strangers spatially through a common experience, try architecture. If you are seized by a passion for discovering new truths about the world, try science. If the passion is instead for discovering new truths about people, try psychology, sociology, or religion. If you find the world of painting or music or fashion and dress to be a living language which you speak as fluently as your native tongue, then by all means enter that conversation.

Try as many as possible; only then can you choose wisely.

I chose to major in computer engineering, because I knew I was passionate about programming: I enjoyed making computers do things that other people couldn't. I enjoyed handling information, making abstract things concrete, and concrete things abstract. But there were many other majors that I could have chosen, except in some cases I didn't know the alternatives even existed; in other cases my university did not offer those majors, deeming them excessively vocational and unsuited to an Ivy.

my personal experience in college

For example, I was passionate about graphic design. I didn't know it at the time: I just thought Adobe Illustrator was cooler than Photoshop because it allowed me to draw.

I was passionate about typography, though I didn't know it at the time: after I discovered LaTeX, I typeset an entire ebook just because I thought the book was good and I wanted to read it on paper.

I was passionate about data visualization, though I didn't know it at the time: I just thought it was fun to make computers draw pretty pictures based on data.

I was passionate about business and entrepreneurship, though I didn't know it at the time: I just saw a need that was going unmet, and I had a lot of fun trying to meet it in a way that would pay for itself.

I won't bore you by going on. I will say, though, that while I was learning all of these useful things on my own outside of class, I was also drawn to seminars in philosophy, psychology, linguistics, history, literature. I spent a lot of time studying humanities and the liberal arts, even though officially I was enrolled in Engineering.

The engineering school gave me tools.

The liberal arts college showed me how to apply them.

For most people, college is the best time of their lives because they get to drink and party every night: all that free time between classes is an invitation to bacchanalia. And partying is not a waste of time, either: one learns to relate with other people from very different backgrounds, to regulate one's moods, to shape a conversation, to inquire, to disclose, to inform, to persuade, at different levels of intoxication.

For more precocious people, though, and I suspect this may be true in your case ... high school was enough partying. After a point I just found the parties repetitive and boring. There were better things I could be doing, I decided, like sleeping, or reading, or writing. Things better done sober than drunk.

I hope that college will offer you some good years to learn as much as you can about the world from different perspectives, and to find your passions, and ultimately to prepare yourself to (quite unintentionally, for that is the best way to do it) write your name on the pages of history.

yours with love,

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20090427

mengwong.com/family/200904-advice-to-coco/