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I recently learned a new term, and it happens to *perfectly* describe the learning (or mastery) of Organic Chemistry. The term is "**anti-fragile**".

Everyone understands what "*fragile*" means - when something fragile is tested / challenged / stressed it breaks apart, and becomes useless. E.g. a wine glass or a thin sheet of ice.

Anti-fragile is the opposite; meaning when something is tested / challenged / stressed, then it becomes improved. One example of an anti-fragile item is your immune system. Your immune system will encounter germs, illnesses, viruses, bacteria, etc., and each time develops a response on how to *better deal* with the test / challenge / stress the next time it is encountered. E.g. recent research shows that peanut allergies can be prevented in children by incremental exposure to peanuts from a young age. Similarly, vaccines produce immunity to diseases. Or think about your body's ability to develop a tolerance to alcohol (or weed, painkillers, caffeine, Ritalin, Adderall, Prozac, adrenaline, etc.). More positively, consider your ability to train your muscles or cardiovascular system – perhaps today you could not run 10 miles, or do 10 pushups, but with some structured and disciplined (incremental) training, I am sure you could easily complete these activities in 4 months' time.

Learning or the mastery of a subject such as Organic Chemistry is also anti-fragile. The more you test / challenge / stress your understanding and problem solving skills, the better they will become. Imagine living all your life in a protective bubble, shielding you from dust, dirt, bacteria, viruses, etc., and then one day you are forced to venture outside, guess what will likely happen with this new exposure...certainly discomfort, maybe illness, or perhaps something even worse.

You can comfortably avoid the challenges of Organic Chemistry, UNTIL the day of the exam. Then we get to see if you have trained yourself to be immune to the *predictable* tests / challenges / stresses of the examination. Throughout the semester you should expose yourself to the established tests / challenges / stresses of Organic Chem., that way you will be fine when it comes to the exam - but you definitely do NOT want exam day to be the first time you have ever tried peanuts (or attempted to run 10 miles)!