



# HARRY POTTER AND THE METHODS OF RATIONALITY

VOLUME I

CHAPTERS 1-9



BY ELIEZER YUDKOWSKY

Based on the characters of

**J. K. Rowling**

and her books:

*Harry Potter and the Sorcerer's Stone*

Year One at Hogwarts

*Harry Potter and the Chamber of Secrets*

Year Two at Hogwarts

*Harry Potter and the Prisoner of Azkaban*

Year Three at Hogwarts

*Harry Potter and the Goblet of Fire*

Year Four at Hogwarts

*Harry Potter and the Order of the Phoenix*

Year Five at Hogwarts

*Harry Potter and the Half-Blood Prince*

Year Six at Hogwarts

*Harry Potter and the Deathly Hallows*

Year Seven at Hogwarts

All text taken from <http://www.hpmor.com>.

# CONTENTS

1. A Day of Very Low Probability.....	4
2. Everything I Believe Is False .....	9
3. Comparing Reality To Its Alternatives .....	12
4. The Efficient Market Hypothesis.....	16
5. The Fundamental Attribution Error.....	20
6. The Planning Fallacy .....	26
7. Reciprocation.....	43
8. Positive Bias.....	60
9. Title Redacted, Part I .....	70

# CHAPTER 1

## A DAY OF VERY LOW PROBABILITY

*Beneath the moonlight glints a tiny fragment of silver, a fraction of a line...*

*(black robes, falling)*

*...blood spills out in litres, and someone screams a word.*



Every inch of wall space is covered by a bookcase. Each bookcase has six shelves, going almost to the ceiling. Some bookshelves are stacked to the brim with hardback books: science, maths, history, and everything else. Other shelves have two layers of paperback science fiction, with the back layer of books propped up on old tissue boxes or lengths of wood, so that you can see the back layer of books above the books in front. And it still isn't enough. Books are overflowing onto the tables and the sofas and making little heaps under the windows.

This is the living-room of the house occupied by the eminent Professor Michael Verres-Evans, and his wife, Mrs. Petunia Evans-Verres, and their adopted son, Harry James Potter-Evans-Verres.

There is a letter lying on the living-room table, and an unstamped envelope of yellowish parchment, addressed to *Mr. H. Potter* in emerald-green ink.

The Professor and his wife are speaking sharply at each other, but they are not shouting. The Professor considers shouting to be uncivilised.

"You're joking," Michael said to Petunia. His tone indicated that he was very much afraid that she was serious.

"My sister was a witch," Petunia repeated. She looked frightened, but stood her ground. "Her husband was a wizard."

"This is absurd!" Michael said sharply. "They were at our wedding - they visited for Christmas -"

"I told them you weren't to know," Petunia whispered. "But it's true. I've seen things -"

The Professor rolled his eyes. "Dear, I understand that you're not familiar with the sceptical literature. You may not realise how easy it is for a trained magician to fake the seemingly impossible. Remember how I taught Harry to bend spoons? If it seemed like they could always guess what you were thinking, that's called cold reading -"

"It wasn't bending spoons -"

"What was it, then?"

Petunia bit her lip. "I can't just tell you. You'll think I'm -" She swallowed. "Listen. Michael. I wasn't - always like this -" She gestured at herself, as though to indicate her lithe form. "Lily did this. Because I - because I

## CHAPTER 1

*begged* her. For years, I begged her. Lily had *always* been prettier than me, and I'd... been mean to her, because of that, and then she got *magic*, can you imagine how I felt? And I *begged* her to use some of that magic on me so that I could be pretty too, even if I couldn't have her magic, at least I could be pretty."

Tears were gathering in Petunia's eyes.

"And Lily would tell me no, and make up the most ridiculous excuses, like the world would end if she were nice to her sister, or a centaur told her not to - the most ridiculous things, and I hated her for it. And when I had just graduated from university, I was going out with this boy, Vernon Dursley, he was fat and he was the only boy who would talk to me. And he said he wanted children, and that his first son would be named Dudley. And I thought to myself, *what kind of parent names their child Dudley Dursley?* It was like I saw my whole future life stretching out in front of me, and I couldn't stand it. And I wrote to my sister and told her that if she didn't help me I'd rather just -"

Petunia stopped.

"Anyway," Petunia said, her voice small, "she gave in. She told me it was dangerous, and I said I didn't care any more, and I drank this potion and I was sick for weeks, but when I got better my skin cleared up and I finally filled out and... I was beautiful, people were *nice* to me," her voice broke, "and after that I couldn't hate my sister any more, especially when I learned what her magic brought her in the end -"

"Darling," Michael said gently, "you got sick, you gained some weight while resting in bed, and your skin cleared up on its own. Or being sick made you change your diet -"

"She was a witch," Petunia repeated. "I saw it."

"Petunia," Michael said. The annoyance was creeping into his voice. "You *know* that can't be true. Do I really have to explain why?"

Petunia wrung her hands. She seemed to be on the verge of tears. "My love, I know I can't win arguments with you, but please, you have to trust me on this -"

"Dad! Mum!"

The two of them stopped and looked at Harry as though they'd forgotten there was a third person in the room.

Harry took a deep breath. "Mum, *your* parents didn't have magic, did they?"

"No," Petunia said, looking puzzled.

"Then no one in your family knew about magic when Lily got her letter. How did *they* get convinced?"

"Ah..." Petunia said. "They didn't just send a letter. They sent a professor from Hogwarts. He -" Petunia's eyes flicked to Michael. "He showed us some magic."

"Then you don't have to fight over this," Harry said firmly. Hoping against hope that this time, just this once, they would listen to him. "If it's true, we can just get a Hogwarts professor here and see the magic for ourselves, and Dad will admit that it's true. And if not, then Mum will admit that it's false. That's what the experimental method is for, so that we don't have to resolve things just by arguing."

The Professor turned and looked down at him, dismissive as usual. "Oh, come now, Harry. Really, *magic*? I thought *you'd* know better than to take this seriously, son, even if you're only ten. Magic is just about the most unscientific thing there is!"

Harry's mouth twisted bitterly. He was treated well, probably better than most genetic fathers treated their own children. Harry had been sent to the best primary schools - and when that didn't work out, he was provided with tutors from the endless pool of starving students. Always Harry had been encouraged to study whatever caught his attention, bought all the books that caught his fancy, sponsored in whatever maths or science competitions he entered. He was given anything reasonable that he wanted, except, maybe, the slightest shred of respect. A Doctor teaching biochemistry at Oxford could hardly be expected to listen to the advice of a little boy. You would listen to Show Interest, of course; that's what a Good Parent would do, and so, if you conceived of yourself as a Good Parent, you would do it. But take a ten-year-old *seriously*? Hardly.

## A DAY OF VERY LOW PROBABILITY

Sometimes Harry wanted to scream at his father.

"Mum," Harry said. "If you want to win this argument with Dad, look in chapter two of the first book of the Feynman Lectures on Physics. There's a quote there about how philosophers say a great deal about what science absolutely requires, and it is all wrong, because the only rule in science is that the final arbiter is observation - that you just have to look at the world and report what you see. Um... off the top of my head I can't think of where to find something about how it's an ideal of science to settle things by experiment instead of arguments -"

His mother looked down at him and smiled. "Thank you, Harry. But -" her head rose back up to stare at her husband. "I don't want to win an argument with your father. I want my husband to, to listen to his wife who loves him, and trust her just this once -"

Harry closed his eyes briefly. *Hopeless*. Both of his parents were just hopeless.

Now his parents were getting into one of *those* arguments again, one where his mother tried to make his father feel guilty, and his father tried to make his mother feel stupid.

"I'm going to go to my room," Harry announced. His voice trembled a little. "Please try not to fight too much about this, Mum, Dad, we'll know soon enough how it comes out, right?"

"Of course, Harry," said his father, and his mother gave him a reassuring kiss, and then they went on fighting while Harry climbed the stairs to his bedroom.

He shut the door behind him and tried to think.

The funny thing was, he *should* have agreed with Dad. No one had ever seen any evidence of magic, and according to Mum, there was a whole magical world out there. How could anyone keep something like that a secret? More magic? That seemed like a rather suspicious sort of excuse.

It should have been a clean case for Mum joking, lying or being insane, in ascending order of awfulness. If Mum had sent the letter herself, that would explain how it arrived at the letterbox without a stamp. A little insanity was far, far less improbable than the universe really working like that.

Except that some part of Harry was utterly convinced that magic was real, and had been since the instant he saw the putative letter from the Hogwarts School of Witchcraft and Wizardry.

Harry rubbed his forehead, grimacing. *Don't believe everything you think*, one of his books had said.

But this bizarre certainty... Harry was finding himself just *expecting* that, yes, a Hogwarts professor would show up and wave a wand and magic would come out. The strange certainty was making no effort to guard itself against falsification - wasn't making excuses in advance for why there wouldn't be a professor, or the professor would only be able to bend spoons.

*Where do you come from, strange little prediction?* Harry directed the thought at his brain. *Why do I believe what I believe?*

Usually Harry was pretty good at answering that question, but in this particular case, he had no *clue* what his brain was thinking.

Harry mentally shrugged. A flat metal plate on a door affords pushing, and a handle on a door affords pulling, and the thing to do with a testable hypothesis is to go and test it.

He took a piece of lined paper from his desk, and started writing.

*Dear Deputy Headmistress*

Harry paused, reflecting; then discarded the paper for another, tapping another millimetre of graphite from his mechanical pencil. This called for careful calligraphy.

*Dear Deputy Headmistress Minerva McGonagall,*

*Or Whomsoever It May Concern:*

*I recently received your letter of acceptance to Hogwarts, addressed to Mr. H. Potter. You may not be aware that my genetic parents, James Potter and Lily Potter (formerly Lily Evans) are dead. I was adopted by Lily's sister, Petunia Evans-Verres, and her husband, Michael Verres-Evans.*

## CHAPTER 1

*I am extremely interested in attending Hogwarts, conditional on such a place actually existing. Only my mother Petunia says she knows about magic, and she can't use it herself. My father is highly sceptical. I myself am uncertain. I also don't know where to obtain any of the books or equipment listed in your acceptance letter.*

*Mother mentioned that you sent a Hogwarts representative to Lily Potter (then Lily Evans) in order to demonstrate to her family that magic was real, and, I presume, help Lily obtain her school materials. If you could do this for my own family it would be extremely helpful.*

*Sincerely,*

*Harry James Potter-Evans-Verres.*

Harry added their current address, then folded up the letter and put it in an envelope, which he addressed to Hogwarts. Further consideration led him to obtain a candle and drip wax onto the flap of the envelope, into which, using a penknife's tip, he impressed the initials H.J.P.E.V. If he was going to descend into this madness, he was going to do it with style.

Then he opened his door and went back downstairs. His father was sitting in the living-room and reading a book of higher maths to show how smart he was; and his mother was in the kitchen preparing one of his father's favourite meals to show how loving she was. It didn't look like they were talking to one another at all. As scary as arguments could be, *not arguing* was somehow much worse.

"Mum," Harry said into the unnerving silence, "I'm going to test the hypothesis. According to your theory, how do I send an owl to Hogwarts?"

His mother turned from the kitchen sink to stare at him, looking shocked. "I - I don't know, I think you just have to own a magic owl."

That should've sounded highly suspicious, *oh, so there's no way to test your theory then*, but the peculiar certainty in Harry seemed willing to stick its neck out even further.

"Well, the letter got here somehow," Harry said, "so I'll just wave it around outside and call 'letter for Hogwarts!' and see if an owl picks it up. Dad, do you want to come and watch?"

His father shook his head minutely and kept on reading. *Of course*, Harry thought to himself. Magic was a disgraceful thing that only stupid people believed in; if his father went so far as to *test* the hypothesis, or even *watch* it being tested, that would feel like *associating* himself with that...

Only as Harry stumped out the back door, into the back garden, did it occur to him that if an owl *did* come down and snatch the letter, he was going to have some trouble telling Dad about it.

*But - well - that can't really happen, can it? No matter what my brain seems to believe. If an owl really comes down and grabs this envelope, I'm going to have worries a lot more important than what Dad thinks.*

Harry took a deep breath, and raised the envelope into the air.

He swallowed.

Calling out *Letter for Hogwarts!* while holding an envelope high in the air in the middle of your own back garden was... actually pretty embarrassing, now that he thought about it.

*No. I'm better than Dad. I will use the scientific method even if it makes me feel stupid.*

"Letter -" Harry said, but it actually came out as more of a whispered croak.

Harry steeled his will, and shouted into the empty sky, "*Letter for Hogwarts! Can I get an owl?*"

"Harry?" asked a bemused woman's voice, one of the neighbours.

Harry pulled down his hand like it was on fire and hid the envelope behind his back like it was drug money. His whole face was hot with shame.

An old woman's face peered out from above the neighbouring fence, grizzled grey hair escaping from her hairnet. Mrs. Figg, the occasional babysitter. "What are you doing, Harry?"

"Nothing," Harry said in a strangled voice. "Just - testing a really silly theory -"

"Did you get your acceptance letter from Hogwarts?"

Harry froze in place.

## A DAY OF VERY LOW PROBABILITY

"Yes," Harry's lips said a little while later. "I got a letter from Hogwarts. They say they want my owl by the 31st of July, but -"

"But you don't *have* an owl. Poor dear! I can't imagine *what* someone must have been thinking, sending you just the standard letter."

A wrinkled arm stretched out over the fence, and opened an expectant hand. Hardly even thinking at this point, Harry gave over his envelope.

"Just leave it to me, dear," said Mrs. Figg, "and in a jiffy or two I'll have someone over."

And her face disappeared from over the fence.

There was a long silence in the garden.

Then a boy's voice said, calmly and quietly, "What."



# CHAPTER 2

## EVERYTHING I BELIEVE IS FALSE

#include "std disclaimer.h"



*"Of course it was my fault. There's no one else here who could be responsible for anything."*



"Now, just to be clear," Harry said, "if the professor does levitate you, Dad, when you know you haven't been attached to any wires, that's going to be sufficient evidence. You're not going to turn around and say that it's a magician's trick. That wouldn't be fair play. If you feel that way, you should say so *now*, and we can figure out a different experiment instead."

Harry's father, Professor Michael Verres-Evans, rolled his eyes. "Yes, Harry."

"And you, Mum, your theory says that the professor should be able to do this, and if that doesn't happen, you'll admit you're mistaken. Nothing about how magic doesn't work when people are sceptical of it, or anything like that."

Deputy Headmistress Minerva McGonagall was watching Harry with a bemused expression. She looked quite witchy in her black robes and pointed hat, but when she spoke she sounded formal and Scottish, which didn't go together with the look at all. At first glance she looked like someone who ought to cackle and put babies into cauldrons, but the whole effect was ruined as soon as she opened her mouth. "Is that sufficient, Mr. Potter?" she said. "Shall I go ahead and demonstrate?"

"*Sufficient?* Probably not," Harry said. "But at least it will *help*. Go ahead, Deputy Headmistress."

"Just Professor will do," said she, and then, "*Wingardium Leviosa*."

Harry looked at his father.

"Huh," Harry said.

His father looked back at him. "Huh," his father echoed.

Then Professor Verres-Evans looked back at Professor McGonagall. "All right, you can put me down now."

His father was lowered carefully to the ground.

Harry ruffled a hand through his own hair. Maybe it was just that strange part of him which had *already* been convinced, but... "That's a bit of an anticlimax," Harry said. "You'd think there'd be some kind of more dramatic mental event associated with updating on an observation of infinitesimal probability -" Harry stopped himself.

Mum, the witch, and even his Dad were giving him *that look* again. "I mean, with finding out that everything I believe is false."

Seriously, it should have been more dramatic. His brain ought to have been flushing its entire current stock of hypotheses about the universe, none of which allowed this to happen. But instead his brain just seemed to be going, *All right, I saw the Hogwarts Professor wave her wand and make your father rise into the air, now what?*

The witch-lady was smiling benevolently upon them, looking quite amused. "Would you like a further demonstration, Mr. Potter?"

"You don't have to," Harry said. "We've performed a definitive experiment. But..." Harry hesitated. He couldn't help himself. Actually, under the circumstances, he *shouldn't* be helping himself. It was right and proper to be curious. "What else *can* you do?"

Professor McGonagall turned into a cat.

Harry scrambled back unthinkingly, backpedalling so fast that he tripped over a stray stack of books and landed hard on his bottom with a *thwack*. His hands came down to catch himself without quite reaching properly, and there was a warning twinge in his shoulder as the weight came down unbraced.

At once the small tabby cat morphed back up into a robed woman. "I'm sorry, Mr. Potter," said the witch, sounding sincere, though the corners of her lips were twitching upwards. "I should have warned you."

Harry was breathing in short gasps. His voice came out choked. "*You can't DO that!*"

"It's only a Transfiguration," said Professor McGonagall. "An Animagus transformation, to be exact."

"You turned into a cat! A *SMALL* cat! You violated Conservation of Energy! That's not just an arbitrary rule, it's implied by the form of the quantum Hamiltonian! Rejecting it destroys unitarity and then you get FTL signalling! And cats are *COMPLICATED*! A human mind can't just visualise a whole cat's anatomy and, and all the cat biochemistry, and what about the *neurology*? How can you go on *thinking* using a cat-sized brain?"

Professor McGonagall's lips were twitching harder now. "Magic."

"Magic *isn't enough* to do that! You'd have to be a god!"

Professor McGonagall blinked. "That's the first time I've ever been called *that*. "

A blur was coming over Harry's vision, as his brain started to comprehend what had just broken. The whole idea of a unified universe with mathematically regular laws, that was what had been flushed down the toilet; the whole notion of *physics*. Three thousand years of resolving big complicated things into smaller pieces, discovering that the music of the planets was the same tune as a falling apple, finding that the true laws were perfectly universal and had no exceptions anywhere and took the form of simple maths governing the smallest parts, *not to mention* that the mind was the brain and the brain was made of neurons, a brain was what a person *was* -

And then a woman turned into a cat, so much for all that.

A hundred questions fought for priority over Harry's lips and the winner poured out: "And, and what kind of incantation is *Wingardium Leviosa*? Who invents the words to these spells, nursery schoolers?"

"That will do, Mr. Potter," Professor McGonagall said crisply, though her eyes shone with suppressed amusement. "If you wish to learn about magic, I suggest that we finalise the paperwork so that you can go to Hogwarts."

"Right," Harry said, somewhat dazed. He pulled his thoughts together. The March of Reason would just have to start over, that was all; they still had the experimental method and that was the important thing. "How do I get to Hogwarts, then?"

A choked laugh escaped Professor McGonagall, as if extracted from her by tweezers.

"Hold on a moment, Harry," his father said. "Remember why you haven't been going to school up until now? What about your condition?"

Professor McGonagall spun to face Michael. "His condition? What's this?"

## CHAPTER 2

"I don't sleep right," Harry said. He waved his hands helplessly. "My sleep cycle is twenty-six hours long, I always go to sleep two hours later, every day. I can't fall asleep any earlier than that, and then the next day I go to sleep two hours later than *that*. 10PM, 12AM, 2AM, 4AM, until it goes around the clock. Even if I try to wake up early, it makes no difference and I'm a wreck that whole day. That's why I haven't been going to a normal school up until now."

"One of the reasons," said his mother. Harry shot her a glare.

McGonagall gave a long *hmmmm*. "I can't recall hearing about such a condition before..." she said slowly. "I'll check with Madam Pomfrey to see if she knows any remedies." Then her face brightened. "No, I'm sure this won't be a problem - I'll find a solution in time. Now," and her gaze sharpened again, "what are these *other* reasons?"

Harry sent his parents a glare. "I am a conscientious objector to child conscription, on grounds that I should not have to suffer for a disintegrating school system's failure to provide teachers or study materials of even minimally adequate quality."

Both of Harry's parents howled with laughter at that, like they thought it was all a big joke. "Oh," said Harry's father, eyes bright, "is *that* why you bit a maths teacher in third year."

"*She didn't know what a logarithm was!*"

"Of course," seconded Harry's mother. "Biting her was a very mature response to that."

Harry's father nodded. "A well-considered policy for addressing the problem of teachers who don't understand logarithms."

"I was *seven years old!* How long are you going to keep on bringing that up?"

"I know," said his mother sympathetically, "you bite *one* maths teacher and they never let you forget it, do they?"

Harry turned to Professor McGonagall. "There! You see what I have to deal with?"

"Excuse me," said Petunia, and fled through the backdoor into the garden, from which her screams of laughter were clearly audible.

"There, ah, there," Professor McGonagall seemed to be having trouble speaking for some reason, "there is to be no biting of teachers at Hogwarts, is that quite clear, Mr. Potter?"

Harry scowled at her. "Fine, I won't bite anyone who doesn't bite me first."

Professor Michael Verres-Evans also had to leave the room briefly upon hearing that.

"Well," Professor McGonagall sighed, after Harry's parents had composed themselves and returned. "Well. I think, under the circumstances, that I should avoid taking you to purchase your study materials until a day or two before school begins."

"What? Why? The other children already know magic, don't they? I have to start catching up right away!"

"Rest assured, Mr. Potter," replied Professor McGonagall, "Hogwarts is quite capable of teaching the basics. And I suspect, Mr. Potter, that if I leave you alone for two months with your schoolbooks, even without a wand, I will return to this house only to find a crater billowing purple smoke, a depopulated city surrounding it and a plague of flaming zebras terrorising what remains of England."

Harry's mother and father nodded in perfect unison.

"*Mum! Dad!*"

# CHAPTER 3

## COMPARING REALITY TO ITS ALTERNATIVES

If J. K. Rowling asks you about this story, you know nothing.



*"But then the question is - who?"*



"Good Lord," said the barman, peering at Harry, "is this - can this be -?"

Harry leaned towards the bar of the Leaky Cauldron as best he could, though it came up to somewhere around the tips of his eyebrows. A question like *that* deserved his very best.

"Am I - could I be - maybe - you never know - if I'm *not* - but then the question is - *who?*"

"Bless my soul," whispered the old barman. "Harry Potter... what an honour."

Harry blinked, then rallied. "Well, yes, you're quite perceptive; most people don't realise that so quickly -"

"That's enough," Professor McGonagall said. Her hand tightened on Harry's shoulder. "Don't pester the boy, Tom, he's new to all this."

"But it is him?" quavered an old woman. "It's Harry Potter?" With a scraping sound, she got up from her chair.

"Doris -" McGonagall said warningly. The glare she shot around the room should have been enough to intimidate anyone.

"I only want to shake his hand," the woman whispered. She bent low and stuck out a wrinkled hand, which Harry, feeling confused and more uncomfortable than he ever had in his life, carefully shook. Tears fell from the woman's eyes onto their clasped hands. "My grandson was an Auror," she whispered to him. "Died in seventy-nine. Thank you, Harry Potter. Thank heavens for you."

"You're welcome," Harry said automatically, and then he turned his head and shot Professor McGonagall a frightened, pleading look.

Professor McGonagall slammed her foot down just as the general rush was about to start. It made a noise that gave Harry a new referent for the phrase "Crack of Doom", and everyone froze in place.

"We're in a hurry," Professor McGonagall said in a voice that sounded perfectly, utterly normal.

They left the bar without any trouble.

"Professor?" Harry said, once they were in the courtyard. He had meant to ask what was going on, but oddly found himself asking an entirely different question instead. "Who was that pale man, by the corner? The man with the twitching eye?"

"Hm?" said Professor McGonagall, sounding a bit surprised; perhaps she hadn't expected that question either. "That was Professor Quirinus Quirrell. He'll be teaching Defence Against the Dark Arts this year at Hogwarts."

"I had the strangest feeling that I knew him..." Harry rubbed his forehead. "And that I shouldn't ought to shake his hand." Like meeting someone who had been a friend, once, before something went drastically wrong... that wasn't really it at all, but Harry couldn't find words. "And what *was*... all of that?"

Professor McGonagall was giving him an odd glance. "Mr. Potter... do you know... how *much* have you been told... about how your parents died?"

Harry returned a steady look. "My parents are alive and well, and they always refused to talk about how my *genetic* parents died. From which I infer that it wasn't good."

"An admirable loyalty," said Professor McGonagall. Her voice went low. "Though it hurts a little to hear you say it like that. Lily and James were friends of mine."

Harry looked away, suddenly ashamed. "I'm sorry," he said in a small voice. "But I *have* a Mum and Dad. And I know that I'd just make myself unhappy by comparing that reality to... something perfect that I built up in my imagination."

"That is amazingly wise of you," Professor McGonagall said quietly. "But your *genetic* parents died very well indeed, protecting you."

*Protecting me?*

Something strange clutched at Harry's heart. "What... *did* happen?"

Professor McGonagall sighed. Her wand tapped Harry's forehead, and his vision blurred for a moment. "Something of a disguise," she said, "so that this doesn't happen again, not until you're ready." Then her wand licked out again, and tapped three times on a brick wall...

...which hollowed into a hole, and dilated and expanded and shivered into a huge archway, revealing a long row of shops with signs advertising cauldrons and dragon livers.

Harry didn't blink. It wasn't like anyone was turning into a cat.

And they walked forwards, together, into the wizarding world.

There were merchants hawking Bounce Boots ("Made with real Flubber!") and "Knives +3! Forks +2! Spoons with a +4 bonus!" There were goggles that would turn anything you looked at green, and a lineup of comfy armchairs with ejection seats for emergencies.

Harry's head kept rotating, rotating like it was trying to wind itself off his neck. It was like walking through the magical items section of an *Advanced Dungeons and Dragons* rulebook (he didn't play the game, but he did enjoy reading the rulebooks). Harry desperately didn't want to miss a single item for sale, in case it was one of the three you needed to complete the cycle of infinite *wish* spells.

Then Harry spotted something that made him, entirely without thinking, veer off from the Deputy Headmistress and start heading straight into the shop, a front of blue bricks with bronze-metal trim. He was brought back to reality only when Professor McGonagall stepped right in front of him.

"Mr. Potter?" she said.

Harry blinked, then realised what he'd just done. "I'm sorry! I forgot for a moment that I was with you instead of my family." Harry gestured at the shop window, which displayed fiery letters that shone piercingly bright and yet remote, spelling out *Bigbam's Brilliant Books*. "When you walk past a bookshop you haven't visited before, you have to go in and look around. That's the family rule."

"That is the most Ravenclaw thing I have ever heard."

"What?"

"Nothing. Mr. Potter, our first step is to visit Gringotts, the bank of the wizarding world. Your *genetic* family vault is there, with the inheritance your *genetic* parents left you, and you'll need money for school supplies." She sighed. "And, I suppose, a certain amount of spending money for books could be excused as well. Though you might want to hold off for a time. Hogwarts has quite a large library on magical subjects. And the tower in which, I strongly suspect, you will be living, has a more broad-ranging library of its own. Any book you bought now would probably be a duplicate."

Harry nodded, and they walked on.

"Don't get me wrong, it's a *great* distraction," Harry said as his head kept swivelling, "probably the best distraction anyone has ever tried on me, but don't think I've forgotten about our pending discussion."

Professor McGonagall sighed. "Your parents - or your mother at any rate - may have been very wise not to tell you."

"So you wish that I could continue in blissful ignorance? There is a certain flaw in that plan, Professor McGonagall."

"I suppose it would be rather pointless," the witch said tightly, "when anyone on the street could tell you the story. Very well."

And she told him of He-Who-Must-Not-Be-Named, the Dark Lord, Voldemort.

"Voldemort?" Harry whispered. It should have been funny, but it wasn't. The name burned with a cold feeling, ruthlessness, diamond clarity, a hammer of pure titanium descending upon an anvil of yielding flesh. A chill swept over Harry even as he pronounced the word, and he resolved then and there to use safer terms like You-Know-Who.

The Dark Lord had raged upon wizarding Britain like a wilding wolf, tearing and rending at the fabric of their everyday lives. Other countries had wrung their hands but hesitated to intervene, whether out of apathetic selfishness or simple fear, for whichever was first among them to oppose the Dark Lord, their peace would be the next target of his terror.

( *The bystander effect*, thought Harry, thinking of Latane and Darley's experiment which had shown that you were more likely to get help if you had an epileptic fit in front of one person than in front of three. *Diffusion of responsibility, everyone hoping that someone else would go first.* )

The Death Eaters had followed in the Dark Lord's wake and in his vanguard, carrion vultures to pick at wounds, or snakes to bite and weaken. The Death Eaters were not as terrible as the Dark Lord, but they were terrible, and they were many. And the Death Eaters wielded more than wands; there was wealth within those masked ranks, and political power, and secrets held in blackmail, to paralyse a society trying to protect itself.

An old and respected journalist, Yermly Wibble, called for increased taxes and conscription. He shouted that it was absurd for the many to cower in fear of the few. His skin, only his skin, had been found nailed to the newsroom wall that next morning, next to the skins of his wife and two daughters. Everyone wished for something more to be done, and no one dared take the lead to propose it. Whoever stood out the most became the next example.

Until the names of James and Lily Potter rose to the top of that list.

And those two might have died with their wands in their hands and not regretted their choices, for they *were* heroes; but for that they had an infant child, their son, Harry Potter.

Tears were coming into Harry's eyes. He wiped them away in anger or maybe desperation, *I didn't know those people, not really, they aren't my parents now, it would be pointless to feel so sad for them* -

When Harry was done sobbing into the witch's robes, he looked up, and felt a little bit better to see tears in Professor McGonagall's eyes as well.

"So what happened?" Harry said, his voice trembling.

## CHAPTER 3

"The Dark Lord came to Godric's Hollow," Professor McGonagall said in a whisper. "You should have been hidden, but you were betrayed. The Dark Lord killed James, and he killed Lily, and he came in the end to you, to your cot. He cast the Killing Curse at you, and that was where it ended. The Killing Curse is formed of pure hate, and strikes directly at the soul, severing it from the body. It cannot be blocked, and whomever it strikes, they die. But you survived. You are the only person ever to survive. The Killing Curse rebounded and struck the Dark Lord, leaving only the burnt hulk of his body and a scar upon your forehead. That was the end of the terror, and we were free. That, Harry Potter, is why people want to see the scar on your forehead, and why they want to shake your hand."

The storm of weeping that had washed through Harry had used up all his tears; he could not cry again, he was done.

(And somewhere in the back of his mind was a small, small note of confusion, a sense of something wrong about that story; and it should have been a part of Harry's art to notice that tiny note, but he was distracted. For it is a sad rule that whenever you are most in need of your art as a rationalist, that is when you are most likely to forget it.)

Harry detached himself from Professor McGonagall's side. "I'll - have to think about this," he said, trying to keep his voice under control. He stared at his shoes. "Um. You can go ahead and call them my parents, if you want, you don't have to say 'genetic parents' or anything. I guess there's no reason I can't have two mothers and two fathers."

There was no sound from Professor McGonagall.

And they walked together in silence, until they came before a great white building with vast bronze doors, and carven words above saying *Gringotts Bank*.

# CHAPTER 4

## THE EFFICIENT MARKET HYPOTHESIS

Disclaimer: J. K. Rowling is watching you from where she waits, eternally in the void between worlds.

A/N: As others have noted, the novels seem inconsistent in the apparent purchasing power of a Galleon; I'm picking a consistent value and sticking with it. Five pounds sterling to the Galleon doesn't square with seven Galleons for a wand and children using hand-me-down wands.



*" World domination is such an ugly phrase. I prefer to call it world optimisation. "*



Heaps of gold Galleons. Stacks of silver Sickles. Piles of bronze Knuts.

Harry stood there, and stared with his mouth open at the family vault. He had so many questions he didn't know *where* to start.

From just outside the door of the vault, Professor McGonagall watched him, seeming to lean casually against the wall, but her eyes intent. Well, that made sense. Being plopped in front of a giant heap of gold coins was a test of character so pure it was archetypal.

"Are these coins the pure metal?" Harry said finally.

"What?" hissed the goblin Griphook, who was waiting near the door. "Are you questioning the integrity of Gringotts, Mr. Potter-Evans-Verres?"

"No," said Harry absently, "not at all, sorry if that came out wrong, sir. I just have no idea at all how your financial system works. I'm asking if Galleons in general are made of pure gold."

"Of course," said Griphook.

"And can anyone coin them, or are they issued by a monopoly that thereby collects seigniorage?"

"What?" said Professor McGonagall.

Griphook grinned, showing sharp teeth. "Only a fool would trust any but goblin coin!"

"In other words," Harry said, "the coins aren't supposed to be worth any more than the metal making them up?"

Griphook stared at Harry. Professor McGonagall looked bemused.



## CHAPTER 4

"I mean, suppose I came in here with a ton of silver. Could I get a ton of Sickles made from it?"

"For a fee, Mr. Potter-Evans-Verres." The goblin watched him with glittering eyes. "For a certain fee. Where would you find a ton of silver, I wonder?"

"I was speaking hypothetically," Harry said. *For now, at any rate.* "So... how much would you charge in fees, as a fraction of the whole weight?"

Griphook's eyes were intent. "I would have to consult my superiors..."

"Give me a wild guess. I won't hold Gringotts to it."

"A twentieth part of the metal would well pay for the coining."

Harry nodded. "Thank you very much, Mr. Griphook."

*So not only is the wizarding economy almost completely decoupled from the Muggle economy, no one here has ever heard of arbitrage.* The larger Muggle economy had a fluctuating trading range of gold to silver, so every time the Muggle gold-to-silver ratio got more than 5% away from the weight of seventeen Sickles to one Galleon, either gold or silver should have drained from the wizarding economy until it became impossible to maintain the exchange rate. Bring in a ton of silver, change to Sickles (and pay 5%), change the Sickles for Galleons, take the gold to the Muggle world, exchange it for more silver than you started with, and repeat.

Wasn't the Muggle gold to silver ratio somewhere around fifty to one? Harry didn't think it was seventeen, anyway. And it looked like the silver coins were actually *smaller* than the gold coins.

Then again, Harry was standing in a bank that *literally* stored your money in vaults full of gold coins guarded by dragons, where you had to go in and take coins out of your vault whenever you wanted to spend money. The finer points of arbitraging away market inefficiencies might well be lost on them. He'd been tempted to make snide remarks about the crudity of their financial system...

*But the sad thing is, their way is probably better.*

On the other hand, one competent hedge fundie could probably own the whole wizarding world within a week. Harry filed away this notion in case he ever ran out of money, or had a week free.

Meanwhile, the giant heaps of gold coins within the Potter vault ought to suit his near-term requirements.

Harry stumped forward, and began picking up gold coins with one hand and dumping them into the other.

When he had reached twenty, Professor McGonagall coughed. "I think that will be more than enough to pay for your school supplies, Mr. Potter."

"Hm?" Harry said, his mind elsewhere. "Hold on, I'm doing a Fermi calculation."

"A *what*?" said Professor McGonagall, sounding somewhat alarmed.

"It's a mathematical thing. Named after Enrico Fermi. A way of getting rough numbers quickly in your head..."

Twenty gold Galleons weighed a tenth of a kilogram, maybe? And gold was, what, ten thousand British pounds a kilogram? So a Galleon would be worth about fifty pounds... The mounds of gold coins looked to be about sixty coins high and twenty coins wide in either dimension of the base, and a mound was pyramidal, so it would be around one-third of the cube. Eight thousand Galleons per mound, roughly, and there were around five mounds of that size, so forty thousand Galleons or 2 million pounds sterling.

Not bad. Harry smiled with a certain grim satisfaction. It was too bad that he was right in the middle of discovering the amazing new world of magic, and couldn't take time out to explore the amazing new world of being rich, which a quick Fermi estimate said was roughly a billion times less interesting.

*Still, that's the last time I ever mow a lawn for one lousy pound.*

Harry wheeled from the giant heap of money. "Pardon me for asking, Professor McGonagall, but I understand that my parents were in their twenties when they died. Is this a *usual* amount of money for a young couple to have in their vault, in the wizarding world?" If it was, a cup of tea probably cost five thousand pounds. Rule one of economics: you can't eat money.

## THE EFFICIENT MARKET HYPOTHESIS

Professor McGonagall shook her head. "Your father was the last heir of an old family, Mr. Potter. It's also possible..." The witch hesitated. "Some of this money may be from bounties placed on You-Know-Who, payable to his ki- ah, to whoever might defeat him. Or those bounties might not have been collected yet. I am not sure."

"Interesting..." Harry said slowly. "So some of this really is, in a sense, mine. That is, earned by me. Sort of. Possibly. Even if I don't remember the occasion." Harry's fingers tapped against his trouser-leg. "That makes me feel less guilty about spending *a very tiny fraction of it! Don't panic, Professor McGonagall!*"

"Mr. Potter! You are a minor, and as such, you will only be allowed to make *reasonable* withdrawals from -"

"I am *all about* reasonable! I am totally on board with fiscal prudence and impulse control! But I *did* see some things on the way here which would constitute *sensible, grown-up* purchases..."

Harry locked gazes with Professor McGonagall, engaging in a silent staring contest.

"Like what?" Professor McGonagall said finally.

"Trunks whose insides hold more than their outsides?"

Professor McGonagall's face grew stern. "Those are *very* expensive, Mr. Potter!"

"Yes, but -" Harry pleaded. "I'm sure that when I'm an adult I'll want one. And I *can* afford one. Logically, it would make just as much sense to buy it now instead of later, and get the use of it right away. It's the same money either way, right? I mean, I *would* want a good one, with *lots* of room inside, good enough that I wouldn't have to just get a better one later..." Harry trailed off hopefully.

Professor McGonagall's gaze didn't waver. "And just what would you *keep* in a trunk like that, Mr. Potter -"

"Books."

"Of course," sighed Professor McGonagall.

"You should have told me *much earlier* that sort of magic item existed! And that I could afford one! Now my father and I are going to have to spend the next two days *frantically* hitting up all the secondhand bookshops for old textbooks, so I can have a decent science library with me at Hogwarts - and maybe a small science fiction collection, if I can assemble something decent out of the bargain bins. Or better yet, I'll make the deal a little sweeter for you, okay? Just let me buy -"

"Mr. Potter! You think you can *bribe* me?"

"What? *No!* Not like that! I'm saying, Hogwarts can keep some of the books I bring, if you think that any of them would make good additions to the library. I'm going to be getting them cheap, and I just want to have them around somewhere or other. It's okay to bribe people with *books*, right? That's a -"

"Family tradition."

"Yes, exactly."

Professor McGonagall's body seemed to slump, the shoulders lowering within her black robes. "I cannot deny the sense of your words, though I much wish I could. I will allow you to withdraw an additional hundred Galleons, Mr. Potter." She sighed again. "I *know* that I shall regret this, and I am doing it anyway."

"That's the spirit! And does a 'mokeskin pouch' do what I think it does?"

"It can't do as much as a trunk," the witch said with visible reluctance, "but... a mokeskin pouch with a Retrieval Charm and Undetectable Extension Charm can hold a number of items until they are called forth by the one who emplaced them -"

"Yes! I definitely need one of those too! It would be like the super backpack of ultimate awesomeness! Batman's utility belt of holding! Never mind my swiss army knife, I could carry a whole tool set in there! Or *books!* I could have the top three books I was reading on me at all times, and just pull one out anywhere! I'll never have to waste another minute of my life! What do you say, Professor McGonagall? It's for the sake of children's reading, the best of all possible causes."

"...I suppose you may add another ten Galleons."

Griphook was favouring Harry with a gaze of frank respect, possibly even outright admiration.

## CHAPTER 4

"And a little spending money, like you mentioned earlier. I think I can remember seeing one or two other things I might want to store in that pouch."

" *Don't push it, Mr. Potter.* "

"But oh, Professor McGonagall, why rain on my parade? Surely this is a *happy* day, when I discover all things wizarding for the first time! Why act the part of the grumpy grownup when instead you could smile and remember your own innocent childhood, watching the look of delight upon my young face as I buy a few toys using an insignificant fraction of the wealth that I earned by defeating the most terrible wizard Britain has ever known, not that I'm accusing you of being ungrateful or anything, but still, what are a few toys compared to that?"

" *You,* " growled Professor McGonagall. There was a look on her face so fearsome and terrible that Harry squeaked and stepped back, knocking over a pile of gold coins with a great jingling noise and sprawling backwards into a heap of money. Griphook sighed and put a palm over his face. "I would be doing a great service to wizarding Britain, Mr. Potter, if I locked you in this vault and left you here."

And they left without any more trouble.

# CHAPTER 5

## THE FUNDAMENTAL ATTRIBUTION ERROR

J. K. Rowling is staring at you. Can you feel her eyes on you? She's reading your mind using her Rowling Rays.



*"It would've required a supernatural intervention for him to have your morality given his environment."*



The Moke Shop was a quaint little shop (some might even say cute) ensconced behind a vegetable stall that was behind a magical glove shop that was on an alleyway off a side street of Diagon Alley. Disappointingly, the shopkeeper was not a wizened ancient crone; just a nervous-looking young woman wearing faded yellow robes. Right now she was holding out a Moke Super Pouch QX31, whose selling point was that it had a Widening Lip as well as an Undetectable Extension Charm: you could actually fit big things in it, though the total volume was still limited.

Harry had *insisted* on coming here straight away, first thing - insisted as hard as he thought he could without making Professor McGonagall suspicious. Harry had something he needed to put into the pouch as soon as possible. It wasn't the bag of Galleons that Professor McGonagall had allowed him to withdraw from Gringotts. It was all the other Galleons that Harry had surreptitiously shoved into his pocket after falling into a heap of gold coins. That *had* been a real accident, but Harry was never one to discard an opportunity... though it'd really been more of a spur-of-the-moment thing. Ever since Harry had been awkwardly carrying the allowed bag of Galleons next to his trouser pocket, so that any jingling would seem to come from the right place.

This still left the question of how he was actually going to get the *other* coins into the pouch without getting caught. The golden coins might have been his, but they were still stolen - self-stolen? Auto-thieved?

Harry looked up from the Moke Super Pouch QX31 on the counter in front of him. "Can I try this for a bit? To make sure it works, um, reliably?" He widened his eyes in an expression of boyish, playful innocence.

Sure enough, after ten repetitions of putting the coin-bag into the pouch, reaching in, whispering "bag of gold", and taking it out, Professor McGonagall took a step away and began examining some of the other items in the shop, and the shopkeeper turned her head to watch.

## CHAPTER 5

Harry dropped the bag of gold into the moleskin pouch with his *left* hand; his *right* hand came out of his pocket tightly holding some of the gold coins, reached into the moleskin pouch, dropped the loose Galleons, and (with a whisper of "bag of gold") retrieved the original bag. Then the bag went back into his *left* hand, to be dropped in again, and Harry's *right* hand went back into his pocket...

Professor McGonagall looked back at him once, but Harry managed to avoid freezing or flinching, and she didn't seem to notice anything. Though you never *did* quite know, with the adults that had a sense of humour. It took three iterations to get the job done, and Harry guessed he'd managed to steal maybe thirty Galleons from himself.

Harry reached up, wiped a bit of sweat from his forehead, and exhaled. "I'd like this one, please."

Fifteen Galleons lighter (twice the price of a wizard's wand, apparently) and one Moke Super Pouch QX31 heavier, Harry and Professor McGonagall pushed their way out of the door. The door formed a hand and waved goodbye to them as they left, extruding its arm in a way that made Harry feel a bit queasy.

And then, unfortunately...

"Are you *really* Harry Potter?" whispered the old man, one huge tear sliding down his cheek. "You wouldn't lie about that, would you? Only I'd heard rumours that you didn't *really* survive the Killing Curse and that's why no one ever heard from you again."

...it seemed that Professor McGonagall's disguise spell was less than perfectly effective against more experienced magical practitioners.

Professor McGonagall had laid a hand on Harry's shoulder and yanked him into the nearest alleyway the moment she'd heard "Harry Potter?" The old man had followed, but at least it looked like no one else had heard.

Harry considered the question. *Was* he really Harry Potter? "I only know what other people have told me," Harry said. "It's not like I remember being born." His hand brushed his forehead. "I've had this scar as long as I remember, and I've been told my name was Harry Potter as long as I remember. But," Harry said thoughtfully, "if there's already sufficient cause to postulate a conspiracy, there's no reason why they wouldn't just find another orphan and raise him to believe that *he* was Harry Potter -"

Professor McGonagall drew her hand over her face in exasperation. "You look just about exactly like your father, James, the year he first attended Hogwarts. And I can attest on the basis of *personality alone* that you are related to the Scourge of Gryffindor."

"*She* could be in on it too," Harry observed.

"No," quavered the old man. "She's right. You have your mother's eyes."

"Hmm," Harry frowned. "I suppose *you* could be in on it too -"

"Enough, Mr. Potter."

The old man raised up a hand as if to touch Harry, but then let it fall. "I'm just glad that you're alive," he murmured. "Thank you, Harry Potter. Thank you for what you did... I'll leave you alone now."

And his cane slowly tapped away, out the alley and down the main street of Diagon Alley.

The Professor looked around, her expression tense and grim. Harry automatically looked around himself. But the alley seemed empty of all but old leaves, and from the mouth leading out into Diagon Alley, only swiftly striding passersby could be seen.

Finally Professor McGonagall seemed to relax. "That was not well done," she said in a low voice. "I know you're not used to this, Mr. Potter, but people do care about you. Please be kind to them."

Harry looked down at his shoes. "They shouldn't," he said with a tinge of bitterness. "Care about me, I mean."

"You saved them from You-Know-Who," said Professor McGonagall. "How should they not care?"

Harry looked up at the witch-lady's strict expression beneath her pointed hat, and sighed. "I suppose there's no chance that if I said *fundamental attribution error* you'd have any idea what that meant."

## THE FUNDAMENTAL ATTRIBUTION ERROR

"No," said the Professor in her precise Scottish accent, "but please explain, Mr. Potter, if you would be so kind."

"Well..." Harry said, trying to figure out how to describe that particular bit of Muggle science. "Suppose you come into work and see your colleague kicking his desk. You think, 'what an angry person he must be'. Your colleague is thinking about how someone bumped him into a wall on the way to work and then shouted at him. *Anyone* would be angry at that, he thinks. When we look at others we see personality traits that explain their behaviour, but when we look at ourselves we see circumstances that explain our behaviour. People's stories make internal sense to them, from the inside, but we don't see people's histories trailing behind them in the air. We only see them in one situation, and we don't see what they would be like in a different situation. So the fundamental attribution error is that we explain by permanent, enduring traits what would be better explained by circumstance and context." There were some elegant experiments which confirmed this, but Harry wasn't about to go into them.

The witch's eyebrows drew up beneath her hat's brim. "I think I understand..." Professor McGonagall said slowly. "But what does that have to do with you?"

Harry kicked the brick wall of the alley hard enough to make his foot hurt. "People think that I saved them from You-Know-Who because I'm some kind of great warrior of the Light."

"The one with the power to vanquish the Dark Lord..." murmured the witch, a strange irony leavening her voice.

"Yes," Harry said, annoyance and frustration warring in him, "like I destroyed the Dark Lord because I have some kind of permanent, enduring destroy-the-Dark-Lord trait. I was fifteen months old at the time! I don't *know* what happened, but I would *suppose* it had something to do with, as the saying goes, contingent environmental circumstances. And certainly nothing to do with my personality. People don't care about *me*, they aren't even paying attention to *me*, they want to shake hands with a *bad explanation* ." Harry paused, and looked at McGonagall. "Do *you* know what really happened?"

"I *have* formed an idea..." said Professor McGonagall. "After meeting you, that is."

"Yes?"

"You triumphed over the Dark Lord by being more awful than *he* was, and survived the Killing Curse by being more terrible than Death."

"Ha. Ha. Ha." Harry kicked the wall again.

Professor McGonagall chuckled. "Let's get you to Madam Malkin's next. I fear your Muggle clothing may be attracting attention."

They ran into two more well-wishers along the way.

Madam Malkin's Robes had a genuinely boring shopfront, red ordinary brick, and glass windows showing plain black robes within. Not robes that shone or changed or spun, or radiated strange rays that seemed to go right through your shirt and tickle you. Just plain black robes, that was all you could see through the window. The door was propped wide open, as if to advertise that there were no secrets here and nothing to hide.

"I'm going to go off for a few minutes while you get fitted for your robes," said Professor McGonagall. "Will you be all right with that, Mr. Potter?"

Harry nodded. He hated clothes shopping with a fiery passion and couldn't blame the older witch for feeling the same way.

Professor McGonagall's wand came out of her sleeve, tapped Harry's head lightly. "And as you'll need to be clear to Madam Malkin's senses, I am removing the Obfuscation."

"Uh..." Harry said. That did worry him a little; he still wasn't used to the 'Harry Potter' thing.

"I went to Hogwarts with Madam Malkin," McGonagall said. "Even then, she was one of the most *composed* people I knew. She wouldn't turn a hair if You-Know-Who himself walked into her shop." McGonagall's voice

was reminiscent, and very approving. "Madam Malkin won't bother you, and she won't let anyone else bother you."

"Where *are* you going?" Harry inquired. "Just in case, you know, something *does* happen."

McGonagall gave Harry a hard look. "I am going *there*," she said, pointing at a building across the street which showed the sign of a wooden keg, "and buying a drink, which I desperately need. *You* are to get fitted for your robes, *nothing else*. I will come back to check up on you *shortly*, and I *expect* to find Madam Malkin's shop still standing and not in any way on fire."

Madam Malkin was a bustling old woman who didn't say a word about Harry when she saw the scar on his forehead, and she shot a sharp look at an assistant when that girl seemed about to say something. Madam Malkin got out a set of animated, writhing bits of cloth that seemed to serve as tape measures and set to work examining the medium of her art.

Next to Harry, a pale young boy with a pointed face and *awesomely* blonde-white hair seemed to be going through the final stages of a similar process. One of Malkin's two assistants was examining the white-haired boy and the chequerboard-gridded robe he was wearing; occasionally she would tap a corner of the robe with her wand, and the robe would loosen or tighten.

"Hello," said the boy. "Hogwarts, too?"

Harry could predict where this conversation was about to go, and he decided in a split second of frustration that enough was enough.

"Good heavens," whispered Harry, "it couldn't be." He let his eyes widen. "Your... name, sir?"

"Draco Malfoy," said Draco Malfoy, looking slightly puzzled.

"It *is* you! Draco Malfoy. I - I never thought I'd be so honoured, sir." Harry wished he could make tears come out of his eyes. The others usually started crying at around this point.

"Oh," said Draco, sounding a little confused. Then his lips stretched in a smug smile. "It's good to meet someone who knows his place."

One of the assistants, the one who'd seemed to recognise Harry, made a muffled choking sound.

Harry bumbled on. "I'm delighted to meet you, Mr. Malfoy. Just unutterably delighted. And to be attending Hogwarts in your very year! It makes my heart swoon."

Oops. That last part might have sounded a little odd, like he was flirting with Draco or something.

"And I am pleased to learn that I shall be treated with the respect due to the family of Malfoy," the other boy lobbed back, accompanied by a smile such as the highest of kings might bestow upon the least of his subjects, if that subject were honest, though poor.

Eh... Damn, Harry was having trouble thinking up his next line. Well, everyone *did* want to shake the hand of Harry Potter, so - "When my clothes are fitted, sir, might you deign to shake my hand? I should wish nothing more to put the capper upon this day, nay, this month, indeed, my whole lifetime."

The white-blond-haired boy glared in return. "And what have *you* done for the Malfoys that entitles you to such a favour?"

*Oh, I am so totally trying this routine on the next person who wants to shake my hand.* Harry bowed his head. "No, no, sir, I understand. I'm sorry for asking. I should be honoured to clean your boots, rather."

"Indeed," snapped the other boy. His stern face lightened somewhat. "Tell me, what House do you think you might be sorted into? I'm bound for Slytherin House, of course, like my father Lucius before me. And for you, I'd guess House Hufflepuff, or possibly House Elf."

Harry grinned sheepishly. "Professor McGonagall says that I'm the most Ravenclaw person she's ever seen or heard tell of in legend, so much so that Rowena herself would tell me to get out more, whatever *that* means, and that I'll undoubtedly end up in Ravenclaw House if the hat isn't screaming too loudly for the rest of us to make out any words, end quote."

## THE FUNDAMENTAL ATTRIBUTION ERROR

"Wow," said Draco Malfoy, sounding slightly impressed. The boy gave a sort of wistful sigh. "Your flattery was great, or I thought so, anyway - you'd do well in Slytherin House, too. Usually it's only my father who gets that sort of grovelling. I'm *hoping* the other Slytherins will suck up to me now I'm at Hogwarts... I guess this is a good sign, then."

Harry coughed. "Actually, sorry, I've got no idea who you are really."

"*Oh come on!*" the boy said with fierce disappointment. "Why'd you go and do that, then?" Draco's eyes widened with sudden suspicion. "And how do you *not* know about the Malfoys? And what are those *clothes* you're wearing? Are your parents *Muggles*?"

"Two of my parents are dead," Harry said. His heart twinged. When he put it that way - "My other two parents are Muggles, and they're the ones that raised me."

"*What?*" said Draco. "Who *are* you?"

"Harry Potter, pleased to meet you."

"*Harry Potter?*" gasped Draco. "*The Harry* -" and the boy cut off abruptly.

There was a brief silence.

Then, with bright enthusiasm, "Harry Potter? *The Harry Potter?* Gosh, I've always wanted to meet you!"

Draco's attendant emitted a sound like she was strangling but kept on with her work, lifting Draco's arms to carefully remove the chequered robe.

"Shut up," Harry suggested.

"Can I have your autograph? No, wait, I want a picture with you first!"

"Shut *up* shut *up* shut *up*."

"I'm just so *delighted* to meet you!"

"Burst into flames and die."

"But you're Harry Potter, the glorious saviour of the wizarding world! Everyone's hero, Harry Potter! I've always wanted to be just like you when I grow up so I can -"

Draco cut off the words in mid-sentence, his face freezing in absolute horror.

Tall, white-haired, coldly elegant in black robes of the finest quality. One hand gripping a silver-handled cane which took on the character of a deadly weapon just by being in that hand. His eyes regarded the room with the dispassionate quality of an executioner, a man to whom killing was not painful, or even deliciously forbidden, but just a routine activity like breathing.

That was the man who had, just that moment, strolled in through the open door.

"Draco," said the man, low and very angry, "*what* are you *saying?*"

In one split second of sympathetic panic, Harry formulated a rescue plan.

"Lucius Malfoy!" gasped Harry Potter. "*The Lucius Malfoy?*"

One of Malkin's assistants had to turn away and face the wall.

Coolly murderous eyes regarded him. "Harry Potter."

"I am so, so honoured to meet you!"

The dark eyes widened, shocked surprise replacing deadly threat.

"Your son has been telling me *all* about you," Harry gushed on, hardly even knowing what was coming out of his mouth but just talking as fast as possible. "But of course I knew about you all before then, everyone knows about you, the great Lucius Malfoy! The most honoured laureate of all the House of Slytherin, I've been thinking about trying to get into Slytherin House myself just because I heard you were in it as a child -"

"*What are you saying, Mr. Potter?*" came a near-scream from outside the shop, and Professor McGonagall burst in a second later.

There was such pure horror on her face that Harry's mouth opened automatically, and then blocked on nothing-to-say.



## CHAPTER 5

"Professor McGonagall!" cried Draco. "Is it really you? I've heard so much about you from my father, I've been thinking of trying to get Sorted into Gryffindor so I can -"

"*What?*" bellowed Lucius Malfoy and Professor McGonagall in perfect unison, standing side-by-side. Their heads swivelled to look at each other in duplicate motions, and then the two recoiled from one another as though performing a synchronised dance.

There was a sudden flurry of action as Lucius seized Draco and dragged him out of the shop.

And then there was silence.

In Professor McGonagall's left hand lay a small drinking-glass, tilted over to one side in the forgotten rush, now slowly dripping drops of alcohol into the tiny puddle of red wine that had appeared on the floor.

Professor McGonagall strode forward into the shop until she was opposite Madam Malkin.

"Madam Malkin," said Professor McGonagall, her voice calm. "What has been happening here?"

Madam Malkin looked back silently for four seconds, and then cracked up. She fell against the wall, wheezing out laughter, and that set off both of her assistants, one of whom fell to her hands and knees on the floor, giggling hysterically.

Professor McGonagall slowly turned to look at Harry, her expression chilly. "I leave you alone for six minutes. Six minutes, Mr. Potter, by the very clock."

"I was only joking around," Harry protested, as the sounds of hysterical laughter went on nearby.

"*Draco Malfoy said in front of his father that he wanted to be sorted into Gryffindor! Joking around isn't enough to do that!*" Professor McGonagall paused, visibly taking breaths. "What part of 'get fitted for robes' sounded to you like *please cast a Confundus Charm on the entire universe!*"

"He was in a situational context where those actions made internal sense -"

"No. Don't explain. I don't want to know what happened in here, ever. Whatever dark power inhabits you, it is *contagious*, and I don't want to end up like poor Draco Malfoy, poor Madam Malkin and her two poor assistants."

Harry sighed. It was clear that Professor McGonagall wasn't in a mood to listen to reasonable explanations. He looked at Madam Malkin, who was still wheezing against the wall, and Malkin's two assistants, who had now *both* fallen to their knees, and finally down at his own tape-measure-draped body.

"I'm not quite done being fitted for clothes," Harry said kindly. "Why don't you go back and have another drink?"

# CHAPTER 6

## THE PLANNING FALLACY

Blah blah disclaimer blah blah Rowling blah blah ownership.

A/N: The "Aftermath" section of this chapter is part of the story, *not* omake.



*You think your day was surreal? Try mine.*



*Some* children would have waited until *after* their first trip to Diagon Alley.

"Bag of element 79," Harry said, and withdrew his hand, empty, from the moleskin pouch.

Most children would have at least waited to get their *wands* first.

"Bag of *okane*," said Harry. The heavy bag of gold popped up into his hand.

Harry withdrew the bag, then plunged it again into the moleskin pouch. He took out his hand, put it back in, and said, "Bag of tokens of economic exchange." That time his hand came out empty.

"Give me back the bag that I just put in." Out came the bag of gold once more.

Harry James Potter-Evans-Verres had gotten his hands on at least one magical item. Why wait?

"Professor McGonagall," Harry said to the bemused witch strolling beside him, "can you give me two words, one word for gold, and one word for something else that isn't money, in a language that I wouldn't know? But don't tell me which is which."

"*Ahava* and *zahav*," said Professor McGonagall. "That's Hebrew, and the other word means love."

"Thank you, Professor. Bag of *ahava*." Empty.

"Bag of *zahav*." And it popped up into his hand.

"Zahav is gold?" Harry questioned, and Professor McGonagall nodded.

Harry thought over his collected experimental data. It was only the most crude and preliminary sort of effort, but it was enough to support at least one conclusion:

"*Aaaaaaarrgh this doesn't make any sense!*"

The witch beside him lifted a lofty eyebrow. "Problems, Mr. Potter?"

"I just falsified every single hypothesis I had! How can it know that 'bag of 115 Galleons' is okay but not 'bag of 90 plus 25 Galleons'? It can *count* but it can't *add*? It can understand nouns, but not some noun phrases that mean the same thing? The person who made this probably didn't speak Japanese and *I* don't speak any Hebrew,

so it's not using *their* knowledge, and it's not using *my* knowledge -" Harry waved a hand helplessly. "The rules seem *sorta* consistent but they don't *mean* anything! I'm not even going to ask how a *pouch* ends up with voice recognition and natural language understanding when the best Artificial Intelligence programmers can't get the fastest supercomputers to do it after thirty-five years of hard work," Harry gasped for breath, "but *what* is going on?"

"Magic," said Professor McGonagall.

"That's just a *word*! Even after you tell me that, I can't make any new predictions! It's exactly like saying 'phlogiston' or 'elan vital' or 'emergence' or 'complexity'!"

The black-robed witch laughed aloud. "But it *is* magic, Mr. Potter."

Harry slumped over a little. "With respect, Professor McGonagall, I'm not quite sure you understand what I'm trying to do here."

"With respect, Mr. Potter, I'm quite sure I don't. Unless - this is just a guess, mind - you're trying to take over the world?"

"No! I mean yes - well, *no*!"

"I think I should perhaps be alarmed that you have trouble answering the question."

Harry glumly considered the Dartmouth Conference on Artificial Intelligence in 1956. It had been the first conference ever on the topic, the one that had coined the phrase "Artificial Intelligence". They had identified key problems such as making computers understand language, learn, and improve themselves. They had suggested, in perfect seriousness, that significant advances on these problems might be made by ten scientists working together for two months.

*No. Chin up. You're just starting on the problem of unravelling all the secrets of magic. You don't actually know whether it's going to be too difficult to do in two months.*

"And you *really* haven't heard of other wizards asking these sorts of questions or doing this sort of scientific experimenting?" Harry asked again. It just seemed so *obvious* to him.

Then again, it'd taken more than two hundred years *after* the invention of the scientific method before any Muggle scientists had thought to systematically investigate which sentences a *human four-year-old* could or couldn't understand. The developmental psychology of linguistics could've been discovered in the eighteenth century, in principle, but no one had even thought to look until the twentieth. So you couldn't really blame the much smaller wizarding world for not investigating the Retrieval Charm.

Professor McGonagall pursed her lips, then shrugged. "I'm still not sure what you mean by 'scientific experimenting', Mr. Potter. As I said, I've seen Muggleborn students try to get Muggle science to work inside Hogwarts, and people invent new Charms and Potions every year."

Harry shook his head. "Technology isn't the same thing as science at all. And trying lots of different ways to do something isn't the same as experimenting to figure out the rules." There were plenty of people who'd tried to invent flying machines by trying out lots of things-with-wings, but only the Wright Brothers had built a wind tunnel to measure lift... "Um, how many Muggle-raised children *do* you get at Hogwarts every year?"

"Perhaps ten or so?"

Harry missed a step and almost tripped over his own feet. " *Ten*?"

The Muggle world had a population of six billion and counting. If you were one in a million, there were seven of you in London and a thousand more in China. It was inevitable that the Muggle population would produce *some* eleven-year-olds who could do calculus - Harry knew he wasn't the only one. He'd met other prodigies in mathematical competitions. In fact he'd been thoroughly trounced by competitors who probably spent *literally all day* practising maths problems and who'd *never* read a science-fiction book and who would burn out *completely* before *puberty* and *never* amount to *anything* in their future lives because they'd just practised *known* techniques instead of learning to think *creatively*. (Harry was something of a sore loser.)

But... in the wizarding world...

## THE PLANNING FALLACY

Ten Muggle-raised children per year, who'd all ended their Muggle educations at the age of eleven? And Professor McGonagall might be biased, but she had claimed that Hogwarts was the largest and most eminent wizarding school in the world... and it only educated up to the age of seventeen.

Professor McGonagall undoubtedly knew every last detail of how you went about turning into a cat. But she seemed to have literally never *heard* of the scientific method. To her it was just Muggle magic. And she didn't even seem *curious* about what secrets might be hiding behind the natural language understanding of the Retrieval Charm.

That left two possibilities, really.

Possibility one: Magic was so incredibly opaque, convoluted, and impenetrable, that even though wizards and witches had tried their best to understand, they'd made little or no progress and eventually given up; and Harry would do no better.

Or ...

Harry cracked his knuckles in determination, but they only made a quiet sort of clicking sound, rather than echoing ominously off the walls of Diagon Alley.

Possibility two: He'd be taking over the world.

Eventually. Perhaps not right away.

That sort of thing *did* sometimes take longer than two months. Muggle science hadn't gone to the moon in the first week after Galileo.

But Harry still couldn't stop the huge smile that was stretching his cheeks so wide they were starting to hurt.

Harry had always been frightened of ending up as one of those child prodigies that never amounted to anything and spent the rest of their lives boasting about how far ahead they'd been at age ten. But then most adult geniuses never amounted to anything either. There were probably a thousand people as intelligent as Einstein for every actual Einstein in history. Because those other geniuses hadn't gotten their hands on the one thing you absolutely needed to achieve greatness. They'd never found an important problem.

*You're mine now*, Harry thought at the walls of Diagon Alley, and all the shops and items, and all the shopkeepers and customers; and all the lands and people of wizarding Britain, and all the wider wizarding world; and the entire greater universe of which Muggle scientists understood so much less than they believed. *I, Harry James Potter-Evans-Verres, do now claim this territory in the name of Science.*

Lightning and thunder completely failed to flash and boom in the cloudless skies.

"What are you smiling about?" inquired Professor McGonagall, warily and wearily.

"I'm wondering if there's a spell to make lightning flash in the background whenever I make an ominous resolution," explained Harry. He was carefully memorising the exact words of his ominous resolution so that future history books would get it right.

"I have the distinct feeling that I ought to be doing something about this," sighed Professor McGonagall.

"Ignore it, it'll go away. Ooh, shiny!" Harry put his thoughts of world conquest temporarily on hold and skipped over to a shop with an open display, and Professor McGonagall followed.



Harry had now bought his potions ingredients and cauldron, and, oh, a few more things. Items that seemed like good things to carry in Harry's Bag of Holding (aka Moke Super Pouch QX31 with Undetectable Extension Charm, Retrieval Charm, and Widening Lip). Smart, sensible purchases.

Harry genuinely didn't understand why Professor McGonagall was looking so *suspicious*.

Right now, Harry was in a shop expensive enough to display in the twisting main street of Diagon Alley. The shop had an open front with merchandise laid out on slanted wooden rows, guarded only by slight grey glows and a young-looking salesgirl in a much-shortened version of witch's robes that exposed her knees and elbows.

Harry was examining the wizarding equivalent of a first-aid kit, the Emergency Healing Pack Plus. There were two self-tightening tourniquets. A syringe of what looked like liquid fire, which was supposed to drastically slow circulation in a treated area while maintaining oxygenation of the blood for up to three minutes, if you needed to prevent a poison from spreading through the body. White cloth that could be wrapped over a part of the body to temporarily numb pain. Plus any number of other items that Harry totally failed to comprehend, like the "Dementor Exposure Treatment", which looked and smelled like ordinary chocolate. Or the "Bafflesnaffle Counter", which looked like a small quivering egg and carried a placard showing how to jam it up someone's nostril.

"A definite buy at five Galleons, wouldn't you agree?" Harry said to Professor McGonagall, and the teenage salesgirl hovering nearby nodded eagerly.

Harry had expected the Professor to make some sort of approving remark about his prudence and preparedness.

What he was getting instead could only be described as the Evil Eye.

"And just *why*," Professor McGonagall said with heavy scepticism, "do you expect to *need* a healer's kit, young man?" (After the unfortunate incident at the Potions shop, Professor McGonagall was trying to avoid saying "Mr. Potter" while anyone else was nearby.)

Harry's mouth opened and closed. "I don't *expect* to need it! It's just in case!"

"Just in case of *what*?"

Harry's eyes widened. "You think I'm *planning* to do something dangerous and *that's* why I want a medical kit?"

A look of grim suspicion and ironic disbelief was the answer.

"Great Scott!" said Harry. (This was an expression he'd learned from the mad scientist Doc Brown in *Back to the Future*.) "Were you also thinking that when I bought the Feather-Falling Potion, the Gillyweed, and the bottle of Food and Water Pills?"

"Yes."

Harry shook his head in amazement. "Just what sort of plan do you think I have *going*, here?"

"I don't know," Professor McGonagall said darkly, "but it ends either in you delivering a ton of silver to Gringotts, or in world domination."

"World domination is such an ugly phrase. I prefer to call it world optimisation."

This hilarious joke failed to reassure the witch giving him the Look of Doom.

"Wow," Harry said, as he realised that she was serious. "You really think that. You really think I'm planning to do something dangerous."

"Yes."

"Like that's the *only* reason anyone would ever buy a first-aid kit? Don't take this the wrong way, Professor McGonagall, but *what sort of crazy children are you used to dealing with*?"

"Gryffindors," spat Professor McGonagall, the word carrying a freight of bitterness and despair that fell like an eternal curse on all youthful enthusiasm and high spirits.

"Deputy Headmistress Professor Minerva McGonagall," Harry said, putting his hands sternly on his hips. "I am not going to be in Gryffindor -"

At this point the Deputy Headmistress interjected something about how if he *was* she would figure out how to kill a hat, which odd remark Harry let pass without comment, though the salesgirl seemed to be having a sudden coughing fit.

## THE PLANNING FALLACY

"- I am going to be in Ravenclaw. And if you really think that I'm planning to do something dangerous, then, honestly, you don't understand me *at all*. I don't *like* danger, it is *scary*. I am being *prudent*. I am being *cautious*. I am preparing for *unforeseen contingencies*. Like my parents used to sing to me: *Be prepared! That's the Boy Scout's marching song! Be prepared! As through life you march along! Don't be nervous, don't be flustered, don't be scared - be prepared!*"

(Harry's parents had in fact only ever sung him those *particular* lines of that Tom Lehrer song, and Harry was blissfully unaware of the rest.)

Professor McGonagall's stance had slightly softened - though mostly when Harry had said that he was heading for Ravenclaw. "What sort of *contingency* do you imagine this kit might prepare you for, *young man*?"

"One of my classmates gets bitten by a horrible monster, and as I scrabble frantically in my mokeskin pouch for something that could help her, she looks at me sadly and with her last breath says, '*Why weren't you prepared?*' And then she dies, and I know as her eyes close that she won't ever forgive me -"

Harry heard the salesgirl gasp, and he looked up to see her staring at him with her lips pressed tight. Then the young woman whirled and fled into the deeper recesses of the shop.

*What...?*

Professor McGonagall reached down, and took Harry's hand in hers, gently but firmly, and pulled Harry out of the main street of Diagon Alley, leading him into an alleyway between two shops which was paved in dirty bricks and dead-ended in a wall of solid black dirt.

The tall witch pointed her wand at the main street and spoke, "*Quietus*" she said, and a screen of silence descended around them, blocking out all the street noises.

*What did I do wrong...*

Professor McGonagall turned to regard Harry. She didn't have a full adult Wrongdoing Face, but her expression was flat, controlled. "You must remember, Mr. Potter," she said, "that there was a war in this country not ten years ago. Everyone has lost someone, and to speak of friends dying in your arms - is not done lightly."

"I - I didn't mean to -" The inference dropped like a falling stone into Harry's exceptionally vivid imagination. He'd talked about someone breathing their last breath - and then the salesgirl had run away - and the war had ended ten years ago so that girl would have been at most eight or nine years old, when, when, "I'm sorry, I didn't mean to..." Harry choked up, and turned away to run from the older witch's gaze but there was a wall of dirt blocking his way and he didn't have his wand yet. "I'm sorry, I'm sorry, I'm *sorry!*"

There came a heavy sigh from behind him. "I know you are, Mr. Potter."

Harry dared to peek behind him. Professor McGonagall only seemed sad, now. "I'm sorry," Harry said again, feeling wretched. "Did anything like that happen to -" and then Harry shut his lips and slapped a hand over his mouth for good measure.

The older witch's face grew a little sadder. "You must learn to think before you speak, Mr. Potter, or else go through life without many friends. That has been the fate of many a Ravenclaw, and I hope it will not be yours."

Harry wanted to just run away. He wanted to pull out a wand and erase the whole thing from Professor McGonagall's memory, be back with her outside the shop again, *make it didn't happen* -

"But to answer your question, Mr. Potter, no, nothing like *that* has ever happened to me. Certainly I've watched a friend breathe their last, once or seven times. But not one of them ever cursed me as they died, and I never thought that they wouldn't forgive me. Why would you *say* such a thing, Mr. Potter? Why would you even *think* it?"

"I, I, I," Harry swallowed. "It's just that I always try to imagine the worst thing that could happen," and maybe he'd also been joking around a little but he would rather have bitten off his own tongue than say that now.

"What?" said Professor McGonagall. "But *why?*"

"So I can stop it from happening!"

"Mr. Potter..." the older witch's voice trailed off. Then she sighed, and knelt down beside him. "Mr. Potter," she said, gently now, "it's not your responsibility to take care of the students at Hogwarts. It's mine. I won't let anything bad happen to you or anyone else. Hogwarts is the safest place for magical children in all the wizarding world, and Madam Pomfrey has a full healer's office. You won't need a healer's kit at all, let alone a five-Galleon one."

"But I *do*!" Harry burst out. " *Nowhere* is perfectly safe! And what if my parents have a heart attack or get in an accident when I go home for Christmas - Madam Pomfrey won't be there, I'll need a healer's kit of my own -"

" *What* in Merlin's name..." Professor McGonagall said. She stood up, and looked down at Harry an expression torn between annoyance and concern. "There's no need to think about such terrible things, Mr. Potter!"

Harry's expression twisted up into bitterness, hearing that. "Yes there *is*! If you don't think, you don't just get hurt yourself, you end up hurting other people!"

Professor McGonagall opened her mouth, then closed it. The witch rubbed the bridge of her nose, looking thoughtful. "Mr. Potter... if I were to offer to listen to you for a while... is there anything you'd like to talk to me about?"

"About what?"

"About why you're convinced you must always be on your guard against terrible things happening to you."

Harry stared at her in puzzlement. That was a self-evident axiom. "Well..." Harry said slowly. He tried to organise his thoughts. How *could* he explain himself to a Professor-witch, when she didn't even know the basics? "Muggle researchers have found that people are always very optimistic, compared to reality. Like they say something will take two days and it takes ten days, or they say it'll take two months and it takes over thirty-five years. For example, in one experiment, they asked students for times by which they were 50% sure, 75% sure, and 99% sure they'd complete their homework, and only 13%, 19%, and 45% of the students finished by those times. And they found that the reason was that when they asked one group for their best-case estimates if everything went as well as possible, and another group for their average-case estimates if everything went as usual, they got back answers that were statistically indistinguishable. See, if you ask someone what they expect in the *normal* case, they visualise what looks like the line of maximum probability at each step along the way - everything going according to plan, with no surprises. But actually, since more than half the students didn't finish by the time they were 99% sure they'd be done, reality usually delivers results a little worse than the 'worst-case scenario'. It's called the planning fallacy, and the best way to fix it is to ask how long things took the last time you tried them. That's called using the outside view instead of the inside view. But when you're doing something new and can't do that, you just have to be really, really, really pessimistic. Like, so pessimistic that reality actually comes out *better* than you expected around as often and as much as it comes out worse. It's actually *really hard* to be *so* pessimistic that you stand a decent chance of *undershooting* real life. Like I make this big effort to be gloomy and I imagine one of my classmates getting bitten, but what actually happens is that the surviving Death Eaters attack the whole school to get at me. But on a happier note -"

"Stop," said Professor McGonagall.

Harry stopped. He had just been about to point out that at least they knew the Dark Lord wouldn't attack, since he was dead.

"I think I might not have made myself clear," the witch said, her precise Scottish voice sounding even more careful. "Did anything happen to *you personally* that frightened you, Mr. Potter?"

"What happened to me personally is only anecdotal evidence," Harry explained. "It doesn't carry the same weight as a replicated, peer-reviewed journal article about a controlled study with random assignment, many subjects, large effect sizes and strong statistical significance."

## THE PLANNING FALLACY

Professor McGonagall pinched the bridge of her nose, inhaled, and exhaled. "I would still like to hear about it," she said.

"Um..." Harry said. He took a deep breath. "There'd been some muggings in our neighborhood, and my mother asked me to return a pan she'd borrowed to a neighbor two streets away, and I said I didn't want to because I might get mugged, and she said, 'Harry, don't say things like that!' Like thinking about it would *make* it happen, so if I didn't talk about it, I would be safe. I tried to explain why I wasn't reassured, and she made me carry over the pan anyway. I was too young to know how statistically unlikely it was for a mugger to target me, but I was old enough to know that not-thinking about something doesn't stop it from happening, so I was really scared."

"Nothing else?" Professor McGonagall said after a pause, when it became clear that Harry was done. "There isn't anything *else* that happened to you?"

"I know it doesn't *sound* like much," Harry defended. "But it was just one of those critical life moments, you see? I mean, I *knew* that not thinking about something doesn't stop it from happening, I *knew* that, but I could see that Mum really thought that way." Harry stopped, struggling with the anger that was starting to rise up again when he thought about it. "She *wouldn't listen*. I tried to tell her, I *begged* her not to send me out, and she *laughed it off*. Everything I said, she treated like some sort of big joke..." Harry forced the black rage back down again. "That's when I realised that everyone who was supposed to protect me was actually crazy, and that they wouldn't listen to me no matter how much I begged them, and that I couldn't ever rely on them to get anything right." Sometimes good intentions weren't enough, sometimes you had to be sane...

There was a long silence.

Harry took the time to breathe deeply and calm himself down. There was no point in getting angry. There was no point in getting angry. *All* parents were like that, *no* adult would lower themselves far enough to place themselves on level ground with a child and listen, his genetic parents would have been no different. Sanity was a tiny spark in the night, an infinitesimally rare exception to the rule of madness, so there was no point in getting angry.

Harry didn't like himself when he was angry.

"Thank you for sharing that, Mr. Potter," said Professor McGonagall after a while. There was an abstracted look on her face (almost exactly the same look that had appeared on Harry's own face while experimenting on the pouch, if Harry had only seen himself in a mirror to realise that). "I shall have to think about this." She turned towards the alley mouthway, and raised her wand -

"Um," Harry said, "can we go get the healer's kit now?"

The witch paused, and looked back at him steadily. "And if I say no - that it is too expensive and you won't need it - then what?"

Harry's face twisted in bitterness. "Exactly what you're thinking, Professor McGonagall. *Exactly* what you're thinking. I conclude you're another crazy adult I can't talk to, and I start planning how to get my hands on a healer's kit anyway."

"I am your guardian on this trip," Professor McGonagall said with a tinge of danger. "I *will not* allow you to push me around."

"I understand," Harry said. He kept the resentment out of his voice, and didn't say any of the other things that came to mind. Professor McGonagall had told him to think before he spoke. He probably wouldn't remember that tomorrow, but he could at least remember it for five minutes.

The witch's wand made a slight circle in her hand, and the noises of Diagon Alley came back. "All right, young man," she said. "Let's go get that healer's kit."

Harry's jaw dropped in surprise. Then he hurried after her, almost stumbling in his sudden rush.





The shop was the same as they had left it, recognisable and unrecognisable items still laid out on the slanted wooden display, the grey glow still protecting and the salesgirl back in her old position. The salesgirl looked up as they approached, her face showing surprise.

"I'm sorry," she said as they got closer, and Harry spoke at almost the same moment, "I apologise for -"

They broke off and looked at each other, and then the salesgirl laughed a little. "I didn't mean to get you in trouble with Professor McGonagall," she said. Her voice lowered conspiratorially. "I hope she wasn't *too* awful to you."

"*Della!*" said Professor McGonagall, sounding scandalised.

"Bag of gold," Harry said to his pouch, and then looked back up at the salesgirl while he counted out five Galleons. "Don't worry, I understand that she's only awful to me because she loves me."

He counted out five Galleons to the salesgirl while Professor McGonagall was spluttering something unimportant. "One Emergency Healing Pack Plus, please."

It was actually sort of unnerving to see how the Widening Lip swallowed the briefcase-sized medical kit. Harry couldn't help wondering what would happen if he tried climbing into the mokeskin pouch himself, given that only the person who put something in was supposed to be able to take it out again.

When the pouch was done... eating... his hard-won purchase, Harry swore he heard a small burping sound afterward. That *had* to have been spelled in on purpose. The alternative hypothesis was too horrifying to contemplate... in fact Harry couldn't even *think* of any alternative hypotheses. Harry looked back up at the Professor, as they began walking through Diagon Alley once more. "Where to next?"

Professor McGonagall pointed toward a shop that looked as if it had been made from flesh instead of bricks and covered in fur instead of paint. "Small pets are permitted at Hogwarts - you could get an owl to send letters, for example -"

"Can I pay a Knut or something and *rent* an owl when I need to send mail?"

"Yes," said Professor McGonagall.

"Then I think emphatically *no*."

Professor McGonagall nodded, as though ticking off a point. "Might I ask why not?"

"I had a pet rock once. It died."

"You don't think you could take care of a pet?"

"*I could*," Harry said, "but I would end up obsessing all day long about whether I'd remembered to feed it that day or if it was slowly starving in its cage, wondering where its master was and why there wasn't any food."

"That poor owl," the older witch said in a soft voice. "Abandoned like that. I wonder what it would do."

"Well, I expect it'd get really hungry and start trying to claw its way out of the cage or the box or whatever, though it probably wouldn't have much luck with that -" Harry stopped short.

The witch went on, still in that soft voice. "And what would happen to it afterward?"

"Excuse me," Harry said, and he reached up to take Professor McGonagall by the hand, gently but firmly, and steered her into yet another alleyway; after ducking so many well-wishers the process had become almost unnoticeably routine. "Please cast that silencing spell."

"*Quietus*."

Harry's voice was shaking. "That owl does *not* represent me, my parents *never* locked me in a cupboard and left me to starve, I do *not* have abandonment fears and I *don't like the trend of your thoughts, Professor McGonagall!*"

The witch looked down at him gravely. "And what thoughts would those be, Mr. Potter?"

"You think I was," Harry was having trouble saying it, "I was *abused?*"

"Were you?"

"No!" Harry shouted. "No, I never was! Do you think I'm *stupid*? I *know* about the concept of child abuse, I *know* about inappropriate touching and all of that and if anything like that happened I would call the police! And report it to the head teacher! And look up social services in the phone book! And tell Grandpa and Grandma and Mrs. Figg! But my parents *never* did anything like that, never ever *ever*! How *dare* you suggest such a thing!"

The older witch gazed at him steadily. "It is my duty as Deputy Headmistress to investigate possible signs of abuse in the children under my care."

Harry's anger was spiralling out of control into pure, black fury. "Don't you ever *dare* breathe a word of these, these *insinuations* to anyone else! *No one*, do you hear me, McGonagall? An accusation like that can ruin people and destroy families even when the parents are completely innocent! I've read about it in the newspapers!" Harry's voice was climbing to a high-pitched scream. "The *system* doesn't know how to *stop*, it doesn't believe the parents *or* the children when they say nothing happened! *Don't you dare threaten my family with that! I won't let you destroy my home!*"

"Harry," the older witch said softly, and she reached out a hand towards him -

Harry took a fast step back, and his hand snapped up and knocked hers away.

McGonagall froze, then she pulled her hand back, and took a step backwards. "Harry, it's all right," she said. "I believe you."

"Do you," Harry hissed. The fury still roaring through his blood. "Or are you just waiting to get away from me so you can file the papers?"

"Harry, I saw your house. I saw you with your parents. They love you. You love them. I do believe you when you say that your parents are not abusing you. But I *had* to ask, because there is something strange at work here."

Harry stared at her coldly. "Like what?"

"Harry, I've seen many abused children in my time at Hogwarts, it would break your heart to know how many. And, when you're happy, you don't behave like one of those children, not at *all*. You smile at strangers, you hug people, I put my hand on your shoulder and you didn't flinch. But sometimes, only sometimes, you say or do something that seems *very* much like... someone who spent his first eleven years locked in a cellar. Not the loving family that I saw." Professor McGonagall tilted her head, her expression growing puzzled again.

Harry took this in, processing it. The black rage began to drain away, as it dawned on him that he was being listened to respectfully, and that his family wasn't in danger.

"And how *do* you explain your observations, Professor McGonagall?"

"I don't know," she said. "But it's possible that something could have happened to you that you don't remember."

Fury rose up again in Harry. That sounded all too much like what he'd read in the newspaper stories of shattered families. "Suppressed memory is a load of *pseudoscience*! People do *not* repress traumatic memories, they remember them all *too* well for the rest of their lives!"

"No, Mr. Potter. There is a Charm called Obliviation."

Harry froze in place. "A spell that erases memories?"

The older witch nodded. "But not all the effects of the experience, if you see what I'm saying, Mr. Potter."

A chill went down Harry's spine. *That* hypothesis... could *not* be easily refuted. "But my parents couldn't do that!"

"Indeed not," said Professor McGonagall. "It would have taken someone from the wizarding world. There's... no way to be certain, I'm afraid."

Harry's rationalist skills began to boot up again. "Professor McGonagall, how sure are you of your observations, and what alternative explanations could there also be?"

## CHAPTER 6

The witch opened her hands, as though to show their emptiness. "Sure? I'm sure of *nothing*, Mr. Potter. In all my life I've never met anyone else like you. Sometimes you just don't seem eleven years old or even all that *human*."

Harry's eyebrows rose toward the sky -

"I'm sorry!" Professor McGonagall said quickly. "I'm very sorry, Mr. Potter. I was trying to make a point and I'm afraid that came out sounding different from what I had in mind -"

"On the contrary, Professor McGonagall," Harry said, and slowly smiled. "I shall take it as a very great compliment. But would you mind if I offered an alternative explanation?"

"Please do."

"Children aren't meant to be too much smarter than their parents," Harry said. "Or too much saner, maybe - my father could probably outsmart me if he was, you know, actually *trying*, instead of using his adult intelligence mainly to come up with new reasons not to change his mind -" Harry stopped. "I'm too smart, Professor. I've got nothing to say to normal children. Adults don't respect me enough to really talk to me. And frankly, even if they did, they wouldn't sound as smart as Richard Feynman, so I might as well read something Richard Feynman wrote instead. I'm *isolated*, Professor McGonagall. I've been isolated my whole life. Maybe that has some of the same effects as being locked in a cellar. And I'm too intelligent to look up to my parents the way that children are designed to do. My parents love me, but they don't feel obliged to respond to reason, and sometimes I feel like they're the children - children who *won't listen* and have absolute authority over my whole existence. I try not to be too bitter about it, but I also try to be *honest* with myself, so, yes, I'm bitter. And I also have an anger management problem, but I'm working on it. That's all."

"*That's all?*"

Harry nodded firmly. "That's all. Surely, Professor McGonagall, even in magical Britain, the normal explanation is always worth *considering?*"



It was later in the day, the sun lowering in the summer sky and shoppers beginning to peter out from the streets. Some shops had already closed; Harry and Professor McGonagall had bought his textbooks from Flourish and Blotts just under the deadline. With only a slight explosion when Harry had made a beeline for the keyword "Arithmancy" and discovered that the seventh-year textbooks invoked nothing more mathematically advanced than trigonometry.

At this moment, though, dreams of low-hanging research fruit were far from Harry's mind.

At this moment, the two of them were walking out of Ollivander's, and Harry was staring at his wand. He'd waved it, and produced multicoloured sparks, which really shouldn't have come as such an extra shock after everything else he'd seen, but somehow -

*I can do magic.*

*Me. As in, me personally. I am magical; I am a wizard.*

He had *felt* the magic pouring up his arm, and in that instant, realised that he had always had that sense, that he had possessed it his whole life, the sense that was not sight or sound or smell or taste or touch but only magic. Like having eyes but keeping them always closed, so that you didn't even realise that you were seeing darkness; and then one day the eye opened, and saw the world. The shock of it had poured through him, touching pieces of himself, awakening them, and then died away in seconds; leaving only the certain knowledge that he was now a wizard, and always had been, and had even, in some strange way, always known it.

And -

*"It is very curious indeed that you should be destined for this wand when its brother why, its brother gave you that scar."*

That could not *possibly* be coincidence. There had been *thousands* of wands in that shop. Well, okay, actually it *could* be coincidence, there were six billion people in the world and thousand-to-one coincidences happened every day. But Bayes's Theorem said that any reasonable hypothesis which made it *more* likely than a thousand-to-one that he'd end up with the brother to the Dark Lord's wand, was going to have an advantage.

Professor McGonagall had simply said *how peculiar* and left it at that, which had put Harry into a state of shock at the sheer, overwhelming *uncuriosity* of wizards and witches. In no *imaginable* world would Harry have just went "Hm" and walked out of the shop without even *trying* to come up with a hypothesis for what was going on.

His left hand rose and touched his scar.

What... *exactly*...

"You're a full wizard now," said Professor McGonagall. "Congratulations."

Harry nodded.

"And what do you think of the wizarding world?" said she.

"It's strange," Harry said. "I ought to be thinking about everything I've seen of magic... everything that I now know is possible, and everything I now know to be a lie, and all the work left before me to understand it. And yet I find myself distracted by relative trivialities like," Harry lowered his voice, "the whole Boy-Who-Lived thing." There didn't seem to be anyone nearby, but no point tempting fate.

Professor McGonagall *abemmed*. "Really? You don't say."

Harry nodded. "Yes. It's just... *odd*. To find out that you were part of this grand story, the quest to defeat the great and terrible Dark Lord, and it's already *done*. Finished. Completely over with. Like you're Frodo Baggins and you find out that your parents took you to Mount Doom and had you toss in the Ring when you were one year old and you don't even remember it."

Professor McGonagall's smile had grown somewhat fixed.

"You know, if I were anyone else, anyone else at all, I'd probably be pretty worried about living up to that start. *Gosh, Harry, what have you done since you defeated the Dark Lord? Your own bookshop? That's great! Say, did you know I named my child after you?* But I have hopes that this will not prove to be a problem." Harry sighed. "Still... it's almost enough to make me wish that there were *some* loose ends from the quest, just so I could say that I really, you know, *participated* somehow."

"Oh?" said Professor McGonagall in an odd tone. "What did you have in mind?"

"Well, for example, you mentioned that my parents were betrayed. Who betrayed them?"

"Sirius Black," the witch said, almost hissing the name. "He's in Azkaban. Wizarding prison."

"How probable is it that Sirius Black will break out of prison and I'll have to track him down and defeat him in some sort of spectacular duel, or better yet put a large bounty on his head and hide out in Australia while I wait for the results?"

Professor McGonagall blinked. Twice. "Not likely. No one has ever escaped from Azkaban, and I doubt that *he* will be the first."

Harry was a bit sceptical of that " *no one* has *ever* escaped from Azkaban" line. Still, maybe with magic you could actually get close to a 100% perfect prison, especially if you had a wand and they did not. The best way to get out would be to not go there in the first place.

"All right then," Harry said. "Sounds like it's been nicely wrapped up." He sighed, scrubbing his palm over his head. "Or maybe the Dark Lord didn't *really* die that night. Not completely. His spirit lingers, whispering to people in nightmares that bleed over into the waking world, searching for a way back into the living lands he swore to destroy, and now, in accordance with the ancient prophecy, he and I are locked in a deadly duel where the winner shall lose and the loser shall win -"

## CHAPTER 6

Professor McGonagall's head swivelled, and her eyes darted around, as though to search the street for listeners.

"I'm *joking*, Professor," Harry said with some annoyance. Sheesh, why did she always take everything so seriously -

A slow sinking sensation began to dawn in the pit of Harry's stomach.

Professor McGonagall looked at Harry with a calm expression. A very, *very* calm expression. Then a smile was put on. "Of course you are, Mr. Potter."

*Aw crap.*

If Harry had needed to formalise the wordless inference that had just flashed into his mind, it would have come out something like, 'If I estimate the probability of Professor McGonagall doing what I just saw as the result of carefully controlling herself, versus the probability distribution for all the things she would do *naturally* if I made a bad joke, then this behavior is significant evidence for her hiding something.'

But what Harry actually thought was, *Aw crap*.

Harry turned his own head to scan the street. Nope, no one nearby. "He's *not* dead, is he," Harry sighed.

"Mr. Potter -"

"The Dark Lord is alive. Of *course* he's alive. It was an *act* of utter *optimism* for me to have even *dreamed* otherwise. I *must* have taken leave of my *senses*, I can't *imagine* what I was *thinking*. Just because *someone* said that his body was found burned to a *crisp*, I can't imagine why I would have thought he was *dead*. *Clearly* I have much left to learn about the art of proper *pessimism*."

"Mr. Potter -"

"At least tell me there's not really a prophecy..." Professor McGonagall was still giving him that bright, fixed smile. "Oh, you have *got* to be kidding me."

"Mr. Potter, you shouldn't go inventing things to worry about -"

"Are you *actually* going to tell me *that*? Imagine my reaction later, when I find out that there was something to worry about after all."

Her fixed smile faltered.

Harry's shoulders slumped. "I have a whole world of magic to analyse. I do *not* have time for this."

Then both of them shut up, as a man in flowing orange robes appeared on the street and slowly passed them by; Professor McGonagall's eyes tracked him, unobtrusively. Harry's mouth was moving as he chewed hard on his lip, and someone watching closely would have noticed a tiny spot of blood appear.

When the orange-robed man had passed into the distance, Harry spoke again, in a low murmur. "Are you going to tell me the truth now, Professor McGonagall? And don't bother trying to wave it off, I'm not stupid."

"You're *eleven years old*, Mr. Potter!" she said in a harsh whisper.

"And therefore subhuman. Sorry... for a moment there, I *forgot*."

"These are dreadful and important matters! They are *secret*, Mr. Potter! It is a *catastrophe* that you, still a child, know even this much! You must not tell *anyone*, do you understand? Absolutely no one!"

As sometimes happened when Harry got *sufficiently* angry, his blood went cold, instead of hot, and a terrible dark clarity descended over his mind, mapping out possible tactics and assessing their consequences with iron realism.

*Point out that you have a right to know: Failure. Eleven-year-old children do not have rights to know anything, in McGonagall's eyes.*

*Say that you will not be friends any more: Failure. She does not value your friendship sufficiently.*

*Point out that you will be in danger if you do not know: Failure. Plans have already been made based on your ignorance. The certain inconvenience of rethinking will seem far more unpalatable than the mere uncertain prospect of your coming to harm.*

*Justice and reason will both fail. You must either find something you have that she wants, or find something you can do which she fears...*

Ah.

"Well then, Professor," Harry said in a low, icy tone, "it sounds like I have something you want. You can, if you like, tell me the truth, the *whole* truth, and in return I will keep your secrets. Or you can try to keep me ignorant so you can use me as a pawn, in which case I will owe you nothing."

McGonagall stopped short in the street. Her eyes blazed and her voice descended into an outright hiss. "How dare you!"

"*How dare you!*" he whispered back at her.

"You would *blackmail* me?"

Harry's lips twisted. "I am *offering* you a *favor*. I am *giving* you a chance to protect *your* precious secret. If you refuse I will have *every* natural motive to make inquiries elsewhere, not to spite you, but because I *have to know!* Get past your pointless anger at a *child* who you think ought to obey you, and you'll realise that any sane adult would do the same! *Look at it from my perspective! How would you feel if it was YOU?*"

Harry watched McGonagall, observed her harsh breathing. It occurred to him that it was time to ease off the pressure, let her simmer for a while. "You don't have to decide right away," Harry said in a more normal tone. "I'll understand if you want time to think about my *offer* ... but I'll warn you of one thing," Harry said, his voice going colder. "Don't try that Obliviation spell on me. Some time ago I worked out a signal, and I have already sent that signal to myself. If I find that signal and I don't *remember* sending it..." Harry let his voice trail off significantly.

McGonagall's face was working as her expressions shifted. "I... wasn't thinking of Obliviating you, Mr. Potter... but why would you have *invented* such a signal if you didn't know about -"

"I thought of it while reading a Muggle science-fiction book, and said to myself, *well, just in case...* And no, I won't tell you the signal, I'm not dumb."

"I hadn't planned to ask," McGonagall said. She seemed to fold in on herself, and suddenly looked very old, and very tired. "This has been an exhausting day, Mr. Potter. Can we get your trunk, and send you home? I will trust you not to speak upon this matter until I have had time to think. Keep in mind that there are only two other people in the whole world who know about this matter, and they are Headmaster Albus Dumbledore and Professor Severus Snape."

So. New information; that was a peace offering. Harry nodded in acceptance, and turned his head to look forward, and started walking again, as his blood slowly began to warm over once more.

"So now I've got to find some way to kill an immortal Dark Wizard," Harry said, and sighed in frustration. "I really wish you had told me that *before* I started shopping."



The trunk shop was more richly appointed than any other shop Harry had visited; the curtains were lush and delicately patterned, the floor and walls of stained and polished wood, and the trunks occupied places of honor on polished ivory platforms. The salesman was dressed in robes of finery only a cut below those of Lucius Malfoy, and spoke with exquisite, oily politeness to both Harry and Professor McGonagall.

Harry had asked his questions, and had gravitated to a trunk of heavy-looking wood, not polished but warm and solid, carved with the pattern of a guardian dragon whose eyes shifted to look at anyone nearing it. A trunk charmed to be light, to shrink on command, to sprout small clawed tentacles from its bottom and squirm after its owner. A trunk with two drawers on each of four sides that each slid out to reveal compartments as deep as the whole trunk. A lid with four locks each of which would reveal a different space inside. And - this was

the important part - a handle on the bottom which slid out a frame containing a staircase leading down into a small, lighted room that would hold, Harry estimated, around twelve bookcases.

If they made luggages like this, Harry didn't know why anyone bothered owning a house.

One hundred and eight golden Galleons. That was the price of a good trunk, lightly used. At around fifty British pounds to the Galleon, that was enough to buy a second-hand car. It would be more expensive than everything else Harry had ever bought in his whole life all put together.

Ninety-seven Galleons. That was how much was left in the bag of gold Harry had been allowed to take out of Gringotts.

Professor McGonagall wore a look of chagrin upon her face. After a long day's shopping she hadn't needed to ask Harry how much gold was left in the bag, after the salesman quoted his price, which meant the Professor could do good mental arithmetic without pen and paper. Once again, Harry reminded himself that *scientifically illiterate* was not at all the same thing as *stupid*.

"I'm sorry, young man," said Professor McGonagall. "This is entirely my fault. I would offer to take you back to Gringotts, but the bank will be closed for all but emergency services now."

Harry looked at her, wondering...

"Well," sighed Professor McGonagall, as she swung on one heel, "we may as well go, I suppose."

...she *hadn't* lost it completely when a child had dared defy her. She hadn't been happy, but she had *thought* instead of exploding in fury. It might have just been that there was an immortal Dark Lord to fight - that she had needed Harry's goodwill. But most adults wouldn't have been capable of thinking even that much; wouldn't consider *future consequences* at all, if someone lower in status had refused to obey them...

"Professor?" Harry said.

The witch turned back and looked at him.

Harry took a deep breath. He needed to be a little angry for what he wanted to try now, there was no way he'd have the courage to do it otherwise. *She didn't listen to me*, he thought to himself, *I would have taken more gold but she didn't want to listen...* Focusing his entire world on McGonagall and the need to bend this conversation to his will, he spoke.

"Professor, you thought one hundred Galleons would be more than enough for a trunk. That's why you didn't bother warning me before it went down to ninety-seven. Which is just the sort of thing the research studies show - that's what happens when people think they're leaving themselves a *little* error margin. They're not pessimistic enough. If it'd been up to me, I'd have taken *two hundred* Galleons just to be sure. There was plenty of money in that vault, and I could have put back any extra later. But I thought you wouldn't let me do it. I thought you'd be angry at me just for asking. Was I wrong?"

"I suppose I must confess that you are right," said Professor McGonagall. "But, young man -"

"That sort of thing is the reason why I have trouble trusting adults." Somehow Harry kept his voice steady. "Because they get angry if you even *try* to reason with them. To them it's defiance and insolence and a challenge to their higher tribal status. If you try to talk to them they get *angry*. So if I had anything *really important* to do, I wouldn't be able to trust you. Even if you listened with deep concern to whatever I said - because that's also part of the *role* of someone playing a concerned adult - you'd never change your actions, you wouldn't actually behave differently, because of anything I said."

The salesman was watching them both with unabashed fascination.

"I can understand your point of view," Professor McGonagall said eventually. "If I sometimes seem too strict, please remember that I have served as Head of Gryffindor House for what feels like several thousand years."

Harry nodded and continued. "So - suppose I had a way to get more Galleons from my vault *without* us going back to Gringotts, but it involved me violating the role of an obedient child. Would I be able to trust you with that, even though you'd have to step outside your own role as Professor McGonagall to take advantage of it?"

## THE PLANNING FALLACY

"*What?*" said Professor McGonagall.

"To put it another way, if I could make today have happened differently, so that we *didn't* take too little money with us, would that be all right even though it would involve a child being insolent to an adult in retrospect?"

"I... suppose..." the witch said, looking quite puzzled.

Harry took out the moleskin pouch, and said, "Eleven Galleons originally from my family vault."

And there was gold in Harry's hand.

For a moment Professor McGonagall's mouth gaped wide, then her jaw snapped shut and her eyes narrowed and the witch bit out, "*Where* did you get that -"

"From my family vault, like I said."

"*How?*"

"Magic."

"That's hardly an answer!" snapped Professor McGonagall, and then stopped, blinking.

"No, it isn't, is it? I *ought* to claim that it's because I experimentally discovered the true secrets of how the pouch works and that it can actually retrieve objects from anywhere, not just its own inside, if you phrase the request correctly. But actually it's from when I fell into that pile of gold before and I shoved some Galleons into my pocket. Anyone who understands pessimism knows that money is something you might need quickly and without much warning. So now are you angry at me for defying your authority? Or glad that we succeeded in our important mission?"

The salesman's eyes were wide like saucers.

And the tall witch stood there, silent.

"Discipline at Hogwarts *must* be enforced," she said after almost a full minute. "For the sake of *all* the students. And that *must* include courtesy and obedience from you to *all* professors."

"I understand, Professor McGonagall."

"Good. Now let us buy that trunk and go home."

Harry felt like throwing up, or cheering, or fainting, or *something*. That was the first time his careful reasoning had ever worked on *anyone*. Maybe because it was also the first time he had something really serious that an adult needed from him, but still -

Minerva McGonagall, +1 point.

Harry bowed, and gave the bag of gold and the extra eleven Galleons into McGonagall's hands. "Thank you very much, Professor. Can you finish up the purchase for me? I've got to visit the lavatory."

The salesman, unctuous once more, pointed toward a door set into the wall with a gold-handled knob. As Harry started to walk away, he heard the salesman ask in his oily voice, "May I inquire as to who that was, Madam McGonagall? I take it he is Slytherin - third-year, perhaps? - and from a prominent family, but I did not recognise -"

The slam of the lavatory door cut off his words, and after Harry had identified the lock and pressed it into place, he grabbed the magical self-cleaning towel and, with shaky hands, wiped moisture off his forehead. Harry's entire body was sheathed in sweat which had soaked clear through his Muggle clothing, though at least it didn't show through the robes.





The sun was setting and it was very late indeed, by the time they stood again in the courtyard of the Leaky Cauldron, the silent leaf-dusted interface between magical Britain's Diagon Alley and the entire Muggle world. (That was one *awfully* decoupled economy...) Harry was to go to a phone box and call his father, once he was on the other side. He didn't need to worry about his luggage being stolen, apparently. His trunk had the status of a major magical item, something that most Muggles wouldn't notice; that was part of what you could get in the wizarding world, if you were willing to pay the price of a secondhand car.

"So here we part ways, for a time," Professor McGonagall said. She shook her head in wonderment. "This has been the strangest day of my life for... many a year. Since the day I learned that a child had defeated You-Know-Who. I wonder now, looking back, if that was the last reasonable day of the world."

Oh, like *she* had anything to complain about. *You think your day was surreal? Try mine.*

"I was very impressed with you today," Harry said to her. "I should have remembered to compliment you out loud, I was awarding you points in my head and everything."

"Thank you, Mr. Potter," said Professor McGonagall. "If you had already been sorted into a House I would have deducted so many points that your grandchildren would still be losing the House Cup."

"Thank *you*, Professor." It was probably too early to call her Minnie.

This woman might well be the sanest adult Harry had ever met, despite her lack of scientific background. Harry was even considering offering her the number-two position in whatever group he formed to fight the Dark Lord, though he wasn't silly enough to say that out loud. *Now what would be a good name for that...? The Death Eater Eaters?*

"I'll see you again soon, when school starts," Professor McGonagall said. "And, Mr. Potter, about your wand \_."

"I know what you're going to ask," Harry said. He took out his precious wand and, with a deep twinge of inner pain, flipped it over in his hand, presenting her with the handle. "Take it. I hadn't planned to do anything, not a single thing, but I don't want you to have nightmares about me blowing up my house."

Professor McGonagall shook her head rapidly. "Oh no, Mr. Potter! That isn't done. I only meant to warn you not to *use* your wand at home, since the Ministry can detect underage magic and it is prohibited without supervision."

"Ah," Harry said. "That sounds like a very sensible rule. I'm glad to see the wizarding world takes that sort of thing seriously."

Professor McGonagall peered hard at him. "You really mean that."

"Yes," Harry said. "I get it. Magic is dangerous and the rules are there for good reasons. Certain other matters are also dangerous. I get that too. Remember that I am not stupid."

"I am unlikely ever to forget it. Thank you, Harry, that does make me feel better about entrusting you with certain things. Goodbye for now."

Harry turned to go, into the Leaky Cauldron and out towards the Muggle world.

As his hand touched the back door's handle, he heard a last whisper from behind him.

"Hermione Granger."

"What?" Harry said, his hand still on the door.

"Look for a first-year girl named Hermione Granger on the train to Hogwarts."

"Who is she?"

There was no answer, and when Harry turned around, Professor McGonagall was gone.



## THE PLANNING FALLACY

### *Aftermath:*

Headmaster Albus Dumbledore leaned forward over his desk. His twinkling eyes peered out at Minerva. "So, my dear, how did you find Harry?"

Minerva opened her mouth. Then she closed her mouth. Then she opened her mouth again. No words came out.

"I see," Albus said gravely. "Thank you for your report, Minerva. You may go."

# CHAPTER 7

## RECIPROCATATION

Whoa. A spokesman for Rowling's literary agent said that Rowling is okay with the existence of fanfiction as long as no one charges for it and everyone's clear that the original copyrights belong to her? That's really cool of her. So thank you, JKR, and thine is the kingdom!



I feel the need to disclaim that certain parts of this chapter are not meant as "bashing". It's not that I have a grudge, the story just writes itself and once you start dropping anvils on a character it's hard to stop.

A few reviewers have asked whether the science in this story is real or made up. Yes, it is real, and if you look at my profile, you'll see a link to a certain nonfiction site that will teach you pretty much everything Harry James Potter-Evans-Verres knows *and then some*.

Thank you very much to *all* my reviewers. (Especially Darkandus on Viridian Dreams, for the surprisingly inspiring comment "Lungs and tea are not meant to interact".



*"Your dad is almost as awesome as my dad."*



Petunia Evans-Verres's lips were trembling and her eyes were tearing up as Harry hugged her midsection on Platform Nine of the King's Cross Station. "Are you sure you don't want me to come with you, Harry?"

Harry glanced over to his father Michael Verres-Evans, who was looking stereotypically stern-but-proud, and then back to his mother, who really did look rather... uncomposed. "Mum, I know you don't like the wizarding world very much. You don't have to come with. I mean it."

Petunia winced. "Harry, you shouldn't worry about me, I'm your mother and if you need someone with you \_."

"Mum, I'm going to be on my own at Hogwarts for *months* and *months*. If I can't manage a train platform alone, better to find out sooner rather than later so we can abort." He lowered his voice to a whisper. "Besides,

Mum, they all love me over there. If I have any problems, all I need to do is take off my sweatband," Harry tapped the exercise band covering his scar, "and I'll have *way* more help than I can handle."

"Oh, Harry," Petunia whispered. She knelt down and hugged him hard, face to face, their cheeks resting against each other. Harry could feel her ragged breathing, and then he heard a muffled sob escape. "Oh, Harry, I do love you, always remember that."

*It's like she's afraid she'll never see me again*, the thought popped into Harry's head. He knew the thought was true but he didn't know why Mum was so afraid.

So he made a guess. "Mum, you know that I'm not going to turn into your sister just because I'm learning magic, right? I'll do any magic you ask for - if I can, I mean - or if you want me *not* to use any magic around the house, I'll do that too, I promise I'll never let magic come between us -"

A tight hug cut off his words. "You have a good heart," his mother whispered into his ear. "A very good heart, my son."

Harry choked up himself a little, then.

His mother released him, and stood up. She took a handkerchief out of her handbag, and with a trembling hand dabbed at the running makeup around her eyes.

There were no questions about his father accompanying him to the magical side of King's Cross Station. Dad had trouble just looking at Harry's trunk directly. Magic ran in families, and Michael Verres-Evans couldn't even walk.

So instead his father just cleared his throat. "Good luck at school, Harry," he said. "Do you think I bought you enough books?"

Harry had explained to his father about how he thought this might be his big chance to do something really revolutionary and important, and Professor Verres-Evans had nodded and dumped his extremely busy schedule for two solid days in order to go on the Greatest Secondhand Bookshop Raid Ever, which had covered four cities and produced *thirty* boxes of science books now sitting in the cavern level of Harry's trunk. Most of the books had gone for a pound or two, but some of them definitely *hadn't*, like the very latest *Handbook of Chemistry and Physics* or the complete 1972 set of the *Encyclopaedia Britannica*. His father had tried to block Harry off from seeing the till displays but Harry figured his father must have spent *at least* a thousand pounds. Harry had said to his father that he would pay him back as soon as he figured out how to convert wizarding gold into Muggle money, and his father had told him to go jump in a lake.

And then his father had asked him: *Do you think I bought you enough books?* It was quite clear what answer Dad wanted to hear.

Harry's throat was hoarse, for some reason. "You can never have enough books," he recited the Verres family motto, and his father knelt down and gave him a quick, firm embrace. "But you *certainly* tried," Harry said, and felt himself choking up again. "It was a really, really, *really* good try."

His Dad straightened. "So..." he said. "Do *you* see a Platform Nine and Three-Quarters?"

King's Cross Station was huge and busy, with walls and floors paved with ordinary dirt-stained tiles. It was full of ordinary people hurrying about their ordinary business, having ordinary conversations which generated lots and lots of ordinary noise. King's Cross Station had a Platform Nine (which they were standing on) and a Platform Ten (right nearby) but there was nothing between Platform Nine and Platform Ten except a thin, unpromising barrier wall. A great skylight overhead let in plenty of light to illuminate the total lack whatsoever of any Platform Nine and Three-Quarters.

Harry stared around until his eyes watered, thinking, *come on, mage-sight, come on, mage-sight*, but absolutely nothing appeared to him. He thought about taking out his wand and waving it, but Professor McGonagall had warned him against using his wand. Plus if there was another shower of multicoloured sparks that might lead to being arrested for setting off fireworks inside a train station. And that was assuming his wand didn't decide to do something else, like blowing up all of King's Cross. Harry had only lightly skimmed his schoolbooks (though

## CHAPTER 7

that skim was quite bizarre enough) in a very quick effort to determine what sort of science books to buy over the next 48 hours.

Well, he had - Harry glanced at his watch - one whole hour to figure it out, since he was supposed to be on the train at eleven. Maybe this was the equivalent of an IQ test and the stupid kids couldn't become wizards. (And the amount of extra time you gave yourself would determine your Conscientiousness, which was the second most important factor in scholarly success.)

"I'll figure it out," Harry said to his waiting parents. "It's probably some sort of test thingy."

His father frowned. "Hm... maybe look for a trail of mixed footprints on the ground, leading somewhere that doesn't seem to make sense -"

"*Dad!*" Harry said. "Stop that! I haven't even *tried* to figure it out on my own!" It was a very good suggestion, too, which was worse.

"Sorry," his father apologised.

"Ah..." Harry's mother said. "I don't think they would do that to a student, do you? Are you sure Professor McGonagall didn't tell you anything?"

"Maybe she was distracted," Harry said without thinking.

"*Harry!*" hissed his father and mother in unison. "*What did you do?*"

"I, um -" Harry swallowed. "Look, we don't have time for this now -"

"*Harry!*"

"I mean it! We don't have time for this now! Because it's a really long story and I've got to figure out how to get to school!"

His mother had a hand over her face. "How bad was it?"

"I, ah," *I can't talk about that for reasons of National Security*, "about half as bad as the Incident with the Science Project?"

"*Harry!*"

"I, er, oh look there are some people with an owl I'll go ask them how to get in!" and Harry ran away from his parents towards the family of fiery redheads, his trunk automatically slithering behind him.

The plump woman looked to him as he arrived. "Hello, dear. First time at Hogwarts? Ron's new, too -" and then she peered closely at him. "*Harry Potter?*"

Four boys and a red-headed girl and an owl all swung around and then froze in place.

"Oh, *come on!*" Harry protested. He'd been planning to go as Harry Verres at least until he got to Hogwarts. "I bought a sweatband and everything! How come you know who I am?"

"Yes," Harry's father said, coming up behind him with long easy strides, "how *do* you know who he is?" His voice indicated a certain dread.

"Your picture was in the newspapers," said one of two identical-looking twins.

"*HARRY!*"

"*Dad!* It's not like that! It's 'cause I defeated the Dark Lord You-Know-Who when I was one year old!"

"*WHAT?*"

"Mum can explain."

"*WHAT?*"

"Ah... Michael dear, there are certain things I thought it would be best not to bother you with until now -"

"Excuse me," Harry said to the redheaded family who were all staring at him, "but it would be quite extremely helpful if you could tell me how to get to Platform Nine and Three Quarters *right now*."

"Ah..." said the woman. She raised a hand and pointed at the wall between platforms. "Just walk straight at the barrier between platforms nine and ten. Don't stop and don't be scared you'll crash into it, that's very important. Best do it at a bit of a run if you're nervous."

"And whatever you do, don't think of an elephant."

"George! Ignore him, Harry dear, there's no reason not to think of an elephant."

"I'm Fred, Mum, not George -"

"Thanks!" Harry said and took off at a run towards the barrier -

Wait a minute, it wouldn't work *unless he believed in it?*

It was at times like this that Harry hated his mind for actually working fast enough to realise that this was a case where "resonant doubt" applied, that is, if he'd started out thinking that he would go through the barrier he'd have been fine, only now he was worried about whether he sufficiently *believed* he'd go through the barrier, which meant that he actually *was* worried about crashing into it -

"Harry! Get back here, you have some *explaining to do!*" That was his Dad.

Harry shut his eyes and ignored everything he knew about justified credibility and just tried to believe *really hard* that he'd go through the barrier and -

- the sounds around him changed.

Harry opened his eyes and stumbled to a halt, feeling vaguely dirtied by having made a deliberate effort to believe something.

He was standing in a bright, open-air platform next to a single huge train, fourteen long carriages headed up by a massive scarlet-metal steam engine with a tall chimney that promised death to air quality. The platform was already lightly crowded (even though Harry was a full hour early); dozens of children and their parents swarmed around benches, tables, and various hawkers and stalls.

It went entirely without saying that there was no such place in King's Cross Station and no room to hide it.

*Okay, so either (a) I just teleported somewhere else entirely (b) they can fold space like no one's business or (c) they are simply ignoring all the rules.*

There was a slithering sound behind him, and Harry turned around to observe that his trunk had indeed followed him on its small clawed tentacles. Apparently, for magical purposes, his luggage had also managed to believe with sufficient strength to pass through the barrier. That was actually a little disturbing when Harry started thinking about it.

A moment later, the youngest-looking red-haired boy came through the iron archway (iron archway?) at a run, pulling his trunk behind him on a lead and nearly crashing into Harry. Harry, feeling stupid for having stayed around, quickly began moving away from the landing area, and the red-haired boy followed him, yanking hard on his trunk's lead in order to keep up. A moment later, a white owl fluttered through the archway and came to rest on the boy's shoulder.

"Cor," said the red-haired boy, "are you *really* Harry Potter?"

*Not this again.* "I have no logical way of knowing that for certain. My parents raised me to *believe* that my name was Harry James Potter-Evans-Verres, and many people here have told me that I *look* like my parents, I mean my other parents, but," Harry frowned, realising, "for all *I* know, there could easily be spells to polymorph a child into a specified appearance -"

"Er, what, mate?"

*Not headed for Ravenclaw, I take it.* "Yes, I'm Harry Potter."

"I'm Ron Weasley," said the tall skinny freckled long-nosed kid, and stuck out a hand, which Harry politely shook as they walked. The owl gave Harry an oddly measured and courteous hoot (actually more of an eehhhhh sound, which surprised Harry).

At this point Harry realised the potential for imminent catastrophe. "Just a second," he said to Ron, and opened one of the drawers of his trunk, the one that if he recalled correctly was for Winter Clothes - it was - and then he found the lightest scarf he owned, underneath his winter coat. Harry took off his sweatband, and just as quickly unfolded the scarf and tied it around his face. It was a little hot, especially in the summer, but Harry could live with that.

## CHAPTER 7

Then he shut that drawer and pulled out another drawer and drew forth black wizarding robes, which he shrugged over his head, now that he was out of Muggle territory.

"There," Harry said. The sound came out slightly muffled through the scarf over his face. He turned to Ron. "How do I look? Stupid, I know, but am I identifiable as Harry Potter?"

"Er," Ron said. He closed his mouth, which had been open. "Not really, Harry."

"Very good," Harry said. "However, so as not to obviate the point of the whole exercise, you will henceforth address me as," Verres might not work anymore, "Mr. Spoo."

"Okay, Harry," Ron said uncertainly.

*The Force is not particularly strong in this one.* "Call... me... Mister... Spoo."

"Okay, Mister Spoo -" Ron stopped. "I can't do that, it makes me feel stupid."

*That's not just a feeling.* "Okay. *You* pick a name."

"Mr. Cannon," Ron said at once. "For the Chudley Cannons."

"Ah..." Harry knew he was going to terribly regret asking this. "Who or what are the Chudley Cannons?"

"*Who're the Chudley Cannons?* Only the most brilliant team in the whole history of Quidditch! Sure, they finished at the bottom of the league last year, but -"

"What's Quidditch?"

Asking this was also a mistake.

"So let me get this straight," Harry said as it seemed that Ron's explanation (with associated hand gestures) was winding down. "Catching the Snitch is worth *one hundred and fifty points?*"

"Yeah -"

"How many ten-point goals does one side usually score *not* counting the Snitch?"

"Um, maybe fifteen or twenty in professional games -"

"That's just wrong. That violates every possible rule of game design. Look, the rest of this game sounds like it might make sense, sort of, for a sport I mean, but you're basically saying that catching the Snitch overwhelms almost any ordinary point spread. The two Seekers are up there flying around looking for the Snitch and usually not interacting with anyone else, spotting the Snitch first is going to be mostly luck -"

"It's not luck!" protested Ron. "You've got to keep your eyes moving in the right pattern -"

"That's not *interactive*, there's no back-and-forth with the other player and how much fun is it to watch someone incredibly good at moving their eyes? And then whichever Seeker gets lucky swoops in and grabs the Snitch and makes everyone else's work moot. It's like someone took a real game and grafted on this pointless extra position so that you could be the Most Important Player without needing to really get involved or learn the rest of it. Who was the first Seeker, the King's idiot son who wanted to play Quidditch but couldn't understand the rules?" Actually, now that Harry thought about it, that seemed like a surprisingly good hypothesis. Put him on a broomstick and tell him to catch the shiny thing...

Ron's face pulled into a scowl. "If you don't like Quidditch, you don't have to make fun of it!"

"If you can't criticise, you can't optimise. I'm suggesting how to *improve the game*. And it's very simple. Get rid of the Snitch."

"They won't change the game just 'cause *you* say so!"

"I *am* the Boy-Who-Lived, you know. People will listen to me. And maybe if I can persuade them to change the game at Hogwarts, the innovation will spread."

A look of absolute horror was spreading over Ron's face. "But, but if you get rid of the Snitch, how will anyone know when the game ends?"

"*By... a... clock.* It would be a lot fairer than having the game sometimes end after ten minutes and sometimes not end for hours, and the schedule would be a lot more predictable for the spectators, too." Harry sighed. "Oh, stop giving me that look of absolute horror, I probably won't *actually* take the time to destroy this pathetic excuse for a national sport and remake it stronger and smarter in my own image. I've got way, way, *way* more

## RECIPROCATION

important stuff to worry about." Harry looked thoughtful. "Then again, it wouldn't *take* much time to write up the Ninety-Five Theses of the Snitchless Reformation and nail it to a church door -"

"Potter," drawled a young boy's voice, "*what* is that on your face and *what* is standing next to you?"

Ron's look of horror was replaced by utter hatred. " *You!* "

Harry turned his head; and indeed it was Draco Malfoy, who might have been forced to wear standard school robes, but was making up for that with a trunk looking at least as magical and far more elegant than Harry's own, decorated in silver and emeralds and bearing what Harry guessed to be the Malfoy family crest, a beautiful fanged serpent over crossed ivory wands.

"Draco!" Harry said. "Er, or Malfoy if you prefer, though that kind of sounds like Lucius to me. I'm glad to see you're doing so well after, um, our last meeting. This is Ron Weasley. And I'm trying to go incognito, so call me, eh," Harry looked down at his robes, "Mister Black."

" *Harry!* " hissed Ron. "You can't use *that* name!"

Harry blinked. "Why not?" It *sounded* nicely dark, like an international man of mystery -

"I'd say it's a *fine* name," said Draco, "but it belongs to the Noble and Most Ancient House of Black. I'll call you Mr. Silver."

" *You* get away from... from Mr. Gold," Ron said coldly, and took a forward step. "He doesn't need to talk to the likes of you!"

Harry raised a placating hand. "I'll go by Mr. Bronze, thanks for the naming schema. And, Ron, um," Harry struggled to find a way to say this, "I'm glad you're so... enthusiastic about protecting me, but I don't particularly mind talking to Draco -"

This was apparently the last straw for Ron, who spun on Harry with eyes now aflame with outrage. " *What?* Do you *know* who this is?"

"Yes, Ron," Harry said, "you may remember that I called him Draco without him needing to introduce himself."

Draco sniggered. Then his eyes lit on the white owl on Ron's shoulder. "Oh, what's *this?* " Draco said in a drawl rich with malice. "Where's the famous Weasley family rat?"

"Buried in the backyard," Ron said coldly.

"Aw, how sad. Pot... ah, Mr. Bronze, I should mention that the Weasley family is widely agreed to have *the best pet story ever* . Want to tell it, Weasley?"

Ron's face contorted. "You wouldn't think it was funny if it happened to *your* family!"

"Oh," Draco purred, "but it wouldn't ever *happen* to the Malfoys."

Ron's hands clenched into fists -

"That's enough," Harry said, putting as much quiet authority into the voice as he could manage. It was clear that whatever this was about, it was a painful memory for the red-haired kid. "If Ron doesn't want to talk about it, he doesn't have to talk about it, and I'd ask that you not talk about it either."

Draco turned a surprised look on Harry, and Ron nodded. "That's right, Harry! I mean Mr. Bronze! You see what kind of person he is? Now tell him to go away!"

Harry counted to ten inside his head, which for him was a very quick *12345678910* - an odd habit left over from the age of five when his mother had first instructed him to do it, and Harry had reasoned that his way was faster and ought to be just as effective. "I'm not telling him to go away," Harry said calmly. "He's welcome to talk to me if he wants."

"Well, I don't intend to hang around with anyone who hangs around with Draco Malfoy," Ron announced coldly.

Harry shrugged. "That's up to you. *I* don't intend to let anyone say who I can and can't hang around with." Silently chanting, *please go away, please go away...*



## CHAPTER 7

Ron's face went blank with surprise, like he'd actually expected that line to work. Then Ron spun about, yanked his luggage's lead and stormed off down the platform.

"If you didn't like him," Draco said curiously, "why didn't you just walk away?"

"Um... his mother helped me figure out how to get to this platform from the King's Cross Station, so it was kind of hard to tell him to get lost. And it's not that I *hate* this Ron guy," Harry said, "I just, just..." Harry searched for words.

"Don't see any reason for him to exist?" offered Draco.

"Pretty much."

"Anyway, Potter... if you really were raised by Muggles -" Draco paused here, as if waiting for a denial, but Harry didn't say anything - then you mightn't know what it's like to be famous. People want to take up *all* of our time. You *have* to learn to say no."

Harry nodded, putting a thoughtful look on his face. "That sounds like good advice."

"If you try to be nice, you just end up spending the most time with the pushiest ones. Decide who you *want* to spend time with and make everyone else leave. You're just getting here, Potter, so everyone's going to judge you by who they see you with, and you don't want to be seen with the likes of Ron Weasley."

Harry nodded again. "If you don't mind my asking, how did you recognise me?"

"*Mister Bronze*," Draco drawled, "I *have* met you, remember. I saw someone going around with a scarf wrapped around his head, looking absolutely ridiculous. So I took a *guess*."

Harry bowed his head, accepting the compliment. "I'm *terribly* sorry about that," Harry said. "Our first meeting, I mean. I didn't mean to embarrass you in front of Lucius."

Draco waved it off while giving Harry an odd look. "I just wish Father could have come in while *you* were flattering *me* -" Draco laughed. "But thank *you* for what you said to Father. If not for that, I might've had a harder time explaining."

Harry swept a deeper bow. "And thank *you* for reciprocating with what you said to Professor McGonagall."

"You're welcome. Though one of the assistants must've sworn her closest friend to absolute secrecy, because Father says there're *weird rumors* going around, like you and I got in a fight or something."

"Ouch," Harry said, wincing. "I'm *really* sorry -"

"No, we're used to it, Merlin knows there's lots of rumors about the Malfoy family already."

Harry nodded. "I'm glad to hear you're not in trouble."

Draco smirked. "Father has, um, a *refined* sense of humor, but he *does* understand making friends. He understands it *very* well. He made me repeat that before I went to bed every night for the last month, 'I will make friends at Hogwarts.' When I explained everything to him and he saw that's what I was doing, he bought me an ice-cream."

Harry's jaw dropped. " *You managed to spin that into an ice-cream?* "

Draco nodded, looking every bit as smug as the feat deserved. "Well, father *knew* what I was doing, of course, but he's the one who taught me *how* to do it, and if I grin the right way *while* I'm doing it, that makes it a father-son thing and then he *has* to buy me an ice-cream or I'll give him this sort of sad look, like I think I must have disappointed him."

Harry eyed Draco calculatingly, sensing the presence of another master. "You've had *lessons* on how to manipulate people?"

"Of course," Draco said proudly. "I'm a *Malfoy*. Father bought me tutors."

"Wow," Harry said. Reading Robert Cialdini's *Influence: Science and Practice* probably didn't stack up very high compared to that (though it was still one heck of a book). "Your dad is almost as awesome as my dad."

Draco's eyebrows rose loftily. "Oh? And what does *your* father do?"

"He buys me books."

Draco considered this. "That doesn't sound very impressive."

## RECIPROCATION

"You had to be there. Anyway, I'm glad to hear all that. The way Lucius was looking at you, I thought he was going to c-crucify you."

"My father really loves me," Draco said firmly. "He wouldn't ever do that."

"Um..." Harry said. He remembered the black-robed, white-haired figure of elegance that had stormed through Madam Malkin's, wielding that beautiful, deadly silver-handled cane. It wasn't easy to visualise him as a doting father. "Don't take this the wrong way, but how do you *know* that?"

"Huh?" It was clear that this was a question Draco did not commonly ask himself.

"I ask the fundamental question of rationality: Why do you believe what you believe? What do you think you know and how do you think you know it? What makes you think Lucius wouldn't sacrifice you the same way he'd sacrifice anything else for power?"

Draco shot Harry another odd look. "Just what do *you* know about Father?"

"Um... seat on the Wizengamot, seat on Hogwarts' Board of Governors, incredibly wealthy, has the ear of Minister Fudge, has the confidence of Minister Fudge, probably has some highly embarrassing photos of Minister Fudge, most prominent blood purist now that the Dark Lord's gone, former Death Eater who was found to have the Dark Mark but got off by claiming to be under the Imperius Curse, which was ridiculously implausible and pretty much everyone knew it... evil with a capital 'E' and a born killer... I think that's it."

Draco's eyes had narrowed to slits. "McGonagall told you that, did she?"

"No, she wouldn't say *anything* to me about Lucius afterwards, except to stay away from him. So during the Incident at the Potions Shop, while Professor McGonagall was busy yelling at the shopkeeper and trying to get everything under control, I grabbed one of the customers and asked *them* about Lucius."

Draco's eyes were wide again. "Did you *really*?"

Harry gave Draco a puzzled look. "If I lied the first time, I'm not going to tell you the truth just because you ask twice."

There was a certain pause as Draco absorbed this.

"You're so completely going to be in Slytherin."

"I'm so completely going to be in Ravenclaw, thank you very much. I only want power so I can get books."

Draco giggled. "Yeah, right. Anyway... to answer what you asked..." Draco took a deep breath, and his face turned serious. "Father once missed a Wizengamot vote for me. I was on a broom and I fell off and broke a lot of ribs. It really hurt. I'd never hurt that much before and I thought I was going to die. So Father missed this really important vote, because he was there by my bed at St. Mungo's, holding my hands and promising me that I was going to be okay."

Harry glanced away uncomfortably, then, with an effort, forced himself to look back at Draco. "Why are you telling me *that*? It seems sort of... private..."

Draco gave Harry a serious look. "One of my tutors once said that people form close friendships by knowing private things about each other, and the reason most people don't make close friends is because they're too embarrassed to share anything really important about themselves." Draco turned his palms out invitingly. "Your turn?"

Knowing that Draco's hopeful face had probably been drilled into him by months of practice did not make it any less effective, Harry observed. Actually it *did* make it *less* effective, but unfortunately not *ineffective*. The same could be said of Draco's clever use of reciprocation pressure for an unsolicited gift, a technique which Harry had read about in his social psychology books (one experiment had shown that an unconditional gift of \$5 was twice as effective as a conditional offer of \$50 in getting people to fill out surveys). Draco had made an unsolicited gift of a confidence, and now invited Harry to offer a confidence in return... and the thing was, Harry *did* feel pressured. Refusal, Harry was certain, would be met with a look of sad disappointment, and maybe a small amount of contempt indicating that Harry had lost points.

"Draco," Harry said, "just so you know, I recognise exactly what you're doing right now. My own books called it *reciprocation* and they talk about how giving someone a straight gift of two Sickles was found to be twice as effective as offering them twenty Sickles in getting them to do what you want..." Harry trailed off.

Draco was looking sad and disappointed. "It's not meant as a trick, Harry. It's a real way of becoming friends."

Harry held up a hand. "I didn't say I wasn't going to respond. I just need time to pick something that's private but just as non-damaging. Let's say... I wanted you to know that I can't be rushed into things." A pause to reflect could go a long way in defusing the power of a lot of compliance techniques, once you learned to recognise them for what they were.

"All right," Draco said. "I'll wait while you come up with something. Oh, and please take off the scarf while you say it."

*Simple but effective.*

And Harry couldn't help but notice how clumsy, awkward, graceless his attempt at resisting manipulation / saving face / showing off had appeared compared to Draco. *I need those tutors.*

"All right," Harry said after a time. "Here's mine." He glanced around and then rolled the scarf back up over his face, exposing everything but the scar. "Um... it sounds like you can really rely on your father. I mean... if you talk to him seriously, he'll always listen to you and take you seriously."

Draco nodded.

"Sometimes," Harry said, and swallowed. This was surprisingly hard, but then it was meant to be. "Sometimes I wish my own Dad was like yours." Harry's eyes flinched away from Draco's face, more or less automatically, and then Harry forced himself to look back at Draco.

Then it hit Harry *what on Earth he'd just said*, and Harry hastily added, "Not that I wish my Dad was a flawless instrument of death like Lucius, I only mean taking me seriously -"

"I understand," Draco said with a smile. "There... now doesn't it feel like we're a little closer to being friends?"

Harry nodded. "Yeah. It does, actually. Um... no offence, but I'm going to put on my disguise again, I *really* don't want to deal with -"

"I understand."

Harry rolled the scarf back down over his face.

"My father takes all his friends seriously," Draco said. "That's why he has lots of friends. You should meet him."

"I'll think about it," Harry said in a neutral voice. He shook his head in wonder. "So you really are his one weak point. Huh."

Now Draco was giving Harry a *really* odd look. "You want to go get something to drink and find somewhere to sit down?"

Harry realised he had been standing in one place for too long, and stretched himself, trying to crack his back. "Sure."

The platform was starting to fill up now, but there was still a quieter area on the far side away from the red steam engine. Along the way they passed a stall containing a bald, bearded man offering newspapers and comic books and stacked neon-green cans.

The stallholder was, in fact, leaning back and drinking out of one of the neon-green cans at the exact point when he spotted the refined and elegant Draco Malfoy approaching along with a mysterious boy looking incredibly stupid with a scarf tied over his face, causing the stallholder to experience a sudden coughing fit in mid-drink and dribble a large amount of neon-green liquid onto his beard.

"Scuse me," Harry said, "but what *is* that stuff, exactly?"

"Comed-Tea," said the stallholder. "If you drink it, something surprising is bound to happen which makes you spill it on yourself or someone else. But it's charmed to vanish just a few seconds later -" Indeed the stain on his beard was already disappearing.

"How droll," said Draco. "How very, very droll. Come, Mr. Bronze, let's go find another -"

"Hold on," Harry said.

"*Oh come on!* That's just, just *juvenile!*"

"No, I'm sorry Draco, I *have* to investigate this. What happens if I drink Comed-Tea while doing my best to keep the conversation completely serious?"

The stallholder smiled mysteriously. "Who knows? A friend walks by in a frog costume? Something unexpected is bound to happen -"

"No. I'm sorry. I just don't believe it. That violates my much-abused suspension of disbelief on so many levels I don't even have the language to describe it. There is, there is just *no way* a bloody *drink* can manipulate reality to produce *comedy setups*, or I'm going to give up and retire to the Bahamas -"

Draco groaned. "Are we *really* going to do this?"

"You don't have to drink it but I *have* to investigate. *Have* to. How much?"

"Five Knuts the can," the stallholder said.

"*Five Knuts?* You can sell reality-manipulating fizzy drinks for *five Knuts the can?*" Harry reached into his pouch, said "four Sickles, four Knuts", and slapped them down on the counter. "Two dozen cans please."

"I'll also take one," Draco sighed, and started to reach for his pockets.

Harry shook his head rapidly. "No, I've got this, doesn't count as a favor either, I want to see if it works for you too." He took a can from the stack now placed on the counter and tossed it to Draco, then started feeding his pouch. The pouch's Widening Lip ate the cans accompanied by small burping noises, which wasn't exactly helping to restore Harry's faith that he would someday discover a reasonable explanation for all this.

Twenty-two burps later, Harry had the last purchased can in his hand, Draco was looking at him expectantly, and the two of them pulled the ring at the same time.

Harry rolled up his scarf to expose his mouth, and they tilted their heads back and drank the Comed-Tea.

It somehow *tasted* bright green - extra-fizzy and limer than lime.

Aside from that, nothing else happened.

Harry looked at the stallholder, who was watching them benevolently.

*All right, if this guy just took advantage of a natural accident to sell me twenty-four cans of nothing, I'm going to applaud his creative entrepreneurial spirit and then kill him.*

"It doesn't always happen immediately," the stallholder said. "But it's guaranteed to happen once per can, or your money back."

Harry took another long drink.

Once again, nothing happened.

*Maybe I should just chug the whole thing as fast as possible... and hope my stomach doesn't explode from all the carbon dioxide, or that I don't burp while drinking it...*

No, he could afford to be a *little* patient. But honestly, Harry didn't see how this was going to work. You couldn't go up to someone and say "Now I'm going to surprise you" or "And now I'm going to tell you the punchline of the joke, and it'll be really funny." It ruined the shock value. In Harry's state of mental preparedness, Lucius Malfoy could have walked past in a ballerina outfit and it wouldn't have made him do a proper spit-take. Just what sort of wacky shenanigan was the universe supposed to cough up *now*?

"Anyway, let's sit down," Harry said. He prepared to swig another drink and started towards the distant seating area, which put him at the right angle to glance back and see the portion of the stall's newspaper stand that was devoted to a newspaper called *The Quibbler*, which was showing the following headline:

## CHAPTER 7

### BOY-WHO-LIVED GETS DRACO MALFOY PREGNANT

"*Gah!*" screamed Draco as bright green liquid sprayed all over him from Harry's direction. Draco turned to Harry with fire in his eyes and grabbed his own can. "You son of a mudblood! Let's see how *you* like being spat upon!" Draco took a deliberate swig from the can just as his own eyes caught sight of the headline.

In sheer reflex action, Harry tried to block his face as the spray of liquid flew in his direction. Unfortunately he blocked using the hand containing the Comed-Tea, sending the rest of the green liquid to splash out over his shoulder.

Harry stared at the can in his hand even as he went on choking and spluttering and the green colour started to vanish from Draco's robes.

Then he looked up and stared at the newspaper headline.

### BOY-WHO-LIVED GETS DRACO MALFOY PREGNANT

Harry's lips opened and said, "buh-bluh-buh-buh..."

Too many competing objections, that was the problem. Every time Harry tried to say "But we're only eleven!" the objection "But men can't get pregnant!" demanded first priority and was then run over by "But there's nothing between us, really!"

Then Harry looked down at the can in his hand again.

He was feeling a deep-seated desire to run away screaming at the top of his lungs until he dropped from lack of oxygen, and the only thing stopping him was that he had once read that outright panic was the sign of a *truly* important scientific problem.

Harry snarled, threw the can violently into a nearby rubbish bin, and stalked back over to the stall. "One copy of *The Quibbler*, please." Harry paid over four more Knuts, retrieved another can of Comed-Tea from his pouch, and then stalked over to the picnic area with the blond-haired boy, who was staring at his own can with an expression of frank admiration.

"I take it back," Draco said, "that was pretty good."

"Hey, Draco, you know what I bet is even better for becoming friends than exchanging secrets? Committing murder."

"I have a tutor who says that," Draco allowed. He reached inside his robes and scratched himself with an easy, natural motion. "Who've you got in mind?"

Harry slammed *The Quibbler* down hard on the picnic table. "The guy who came up with this headline."

Draco groaned. "Not a guy. A girl. A *ten-year-old* girl, can you believe it? She went nuts after her mother died and her father, who owns this newspaper, is *convinced* that she's a seer, so when he doesn't know he asks Luna Lovegood and believes *anything* she says."

Not really thinking about it, Harry pulled the ring on his next can of Comed-Tea and prepared to drink. "Are you kidding me? That's even worse than Muggle journalism, which I would have thought was physically impossible."

Draco snarled. "She has some sort of perverse obsession about the Malfoys, too, and her father is politically opposed to us so he prints every word. As soon as I'm old enough I'm going to rape her."

Green liquid spurted out of Harry's nostrils, soaking into the scarf still covering that area. Comed-Tea and lungs did not mix, and Harry spent the next few seconds frantically coughing.

Draco looked at him sharply. "Something wrong?"

It was at this point that Harry came to the sudden realisation that (a) the sounds coming from the rest of the train platform had turned into more of a blurred white noise at around the same time Draco had reached inside his robes, and (b) when he had discussed committing murder as a bonding method, there had been exactly one person in the conversation who'd thought they were joking.

## RECIPROCATION

*Right. Because he seemed like such a normal kid. And he is a normal kid, he is just what you'd expect a baseline male child to be like if Darth Vader were his doting father.*

"Yes, well," Harry coughed, oh god how was he going to get out of this conversational wedge, "I was just surprised at how you were willing to discuss it so openly, you didn't seem worried about getting caught or anything."

Draco snorted. "Are you joking? *Luna Lovegood's* word against mine?"

Holy crap on a holy stick. "There's no such thing as magical truth detection, I take it?" *Or DNA testing... yet.*

Draco looked around. His eyes narrowed. "That's right, you don't know anything. Look, I'll explain things to you, I mean the way it really works, just like you were already in Slytherin and asked me the same question. But you've got to swear not to say anything about it."

"I swear," Harry said.

"The courts use Veritaserum, but it's a joke really, you just get yourself Obliviated before you testify and then claim the other person was Memory-Charmed with a fake memory. Of course if you're just some normal person, the courts presume in favor of Obliviation, not False Memory Charms. But the court has discretion, and if *I'm* involved then it impinges on the honor of a Noble House, so it goes to the Wizengamot, where Father has the votes. After I'm found not guilty the Lovegood family has to pay reparations for tarnishing my honor. And they know from the start that's how it'll go, so they'll just keep their mouths shut."

A cold chill was coming over Harry, a chill that came with instructions to keep his voice and face normal. *Note to self: Overthrow government of magical Britain at earliest convenience.*

Harry coughed again to clear his throat. "Draco, please please *please* don't take this the wrong way, my word is my bond, but like you said I could be in Slytherin and I really want to ask for informational purposes, so what would happen *theoretically speaking* if I *did* testify that I'd heard you plan it?"

"Then if I was anyone other than a Malfoy, I'd be in trouble," Draco answered smugly. "Since I *am* a Malfoy... Father has the votes. And afterwards he'd crush you... well, I guess not easily, since you *are* the Boy-Who-Lived, but Father is pretty good at that sort of thing." Draco frowned. "Sides, *you* talked about murdering her, why weren't you worried about *me* testifying after she turns up dead?"

*How, oh how did my day go this wrong?* Harry's mouth was already moving faster than he could think. "That's when I thought she was *older!* I don't know how it works *here*, but in Muggle Britain the courts would get a lot more upset about someone killing a child -"

"That makes sense," Draco said, still looking a bit suspicious. "But anyway, it's always smarter if it doesn't go to the Aurors at all. If we're careful only to do things that Healing Charms can fix, we can just Obliviate her afterwards and then do it all again next week." Then the blonde-haired boy giggled, a youthful high-pitched sound. "Though just imagine her saying she'd been done by Draco Malfoy *and* the Boy-Who-Lived, not even *Dumbledore* would believe her."

*I am going to tear apart your pathetic little magical remnant of the Dark Ages into pieces smaller than its constituent atoms.* "Actually, can we hold off on that? After I found out that headline came from a girl a year younger than me, I had a different thought for my revenge."

"Huh? Do tell," Draco said, and started to take another swig of his Comed-Tea.

Harry didn't know if the enchantment worked more than once per can, but he *did* know he could avoid the blame, so he was careful to time it exactly right:

"I was thinking *someday I'm going to marry that woman.*"

Draco made a horrid ker-splutching sound and leaked green fluid out the corners of his mouth like a broken car radiator. "Are you nuts?"

"Quite the opposite, I'm so sane it burns like ice."

"You've got weirder taste than a Lestrage," Draco said, sounding half-admiring about it. "And I suppose you want her all to yourself, huh?"

"Yep. I can owe you a favor for it -"

Draco waved it off. "Nah, this one's free."

Harry stared down at the can in his hand, the coldness settling into his blood. Charming, happy, generous with his favors to his friends, Draco wasn't a psychopath. That was the sad and awful part, knowing human psychology well enough to *know* that Draco *wasn't* a monster. There had been ten thousand societies over the history of the world where this conversation could have happened. No, the world would have been a very different place indeed, if it took an *evil mutant* to say what Draco had said. It was very simple, very human, it was the default if nothing else intervened. To Draco, his enemies weren't people.

And in the slowed time of this slowed country, here and now as in the darkness-before-dawn prior to the Age of Reason, the son of a sufficiently powerful noble would simply take for granted that he was above the law, at least when it came to some peasant girl. There were places in Muggle-land where it was still the same way, countries where that sort of nobility still existed and still thought like that, or even grimmer lands where it wasn't just the nobility. It was like that in every place and time that didn't descend directly from the Enlightenment. A line of descent, it seemed, which didn't quite include magical Britain, for all that there had been cross-cultural contamination of things like ring-pull drinks cans.

*And if Draco doesn't change his mind about wanting revenge, and I don't throw away my own chance at happiness in life to marry some poor crazy girl, then all I've just bought is time, and not too much of it...*

For one girl. Not for others.

*I wonder how difficult it would be to just make a list of all the top blood purists and kill them.*

They'd tried exactly that during the French Revolution, more or less - make a list of all the enemies of Progress and remove everything above the neck - and it hadn't worked out well from what Harry recalled. Maybe he needed to dust off some of those history books his father had bought him, and see if what had gone wrong with the French Revolution was something easy to fix.

Harry gazed up at the sky, and at the pale shape of the Moon, visible this morning through the cloudless air.

*So the world is broken and flawed and insane, and cruel and bloody and dark. This is news? You always knew that, anyway...*

"You're looking all serious," Draco said. "Let me guess, your Muggle parents told you that this sort of thing was bad."

Harry nodded, not quite trusting his voice.

"Well, like Father says, there may be four houses, but in the end everyone belongs to either Slytherin or Hufflepuff. And frankly, you're not on the Hufflepuff end. If you decide to side with the Malfoys under the table... our power and your reputation... you could get away with things even *I* can't do. Want to *try* it for a while? See what it's like?"

*Aren't we a clever little serpent. Eleven years old and already coaxing your prey from hiding...*

Harry thought, considered, chose his weapon. "Draco, you want to explain the whole blood purity thing to me? I'm sort of new."

A wide smile crossed Draco's face. "You really should meet Father and ask *him*, you know, he's our leader."

"Give me the thirty-second version."

"Okay," Draco said. He drew in a deep breath, and his voice grew slightly lower, and took on a cadence. "Our powers have grown weaker, generation by generation, as the mudblood taint increases. Where Salazar and Godric and Rowena and Helga once raised Hogwarts by their power, creating the Locket and the Sword and the Diadem and the Cup, no wizard of these faded days has risen to rival them. We are fading, all fading into Muggles as we interbreed with their spawn and allow our Squibs to live. If the taint is not checked, soon our wands will break and all our arts cease, the line of Merlin will end and the blood of Atlantis fail. Our children will be left scratching at the dirt to survive like the mere Muggles, and darkness will cover all the world for ever." Draco took another swig from his drinks can, looking satisfied; that seemed to be the whole argument as far as he was concerned.

"Persuasive," Harry said, meaning it descriptively rather than normatively. It was a standard pattern: The Fall from Grace, the need to guard what purity remained against contamination, the past sloping upwards and the future sloping only down. And that pattern also had its *counter* ... "I have to correct you on one point of fact, though. Your information about the Muggles is a bit out of date. We aren't exactly scratching at the dirt anymore."

Draco's head snapped around. " *What?* What do you mean, *we*? "

"We. The scientists. The line of Francis Bacon and the blood of the Enlightenment. Muggles didn't just sit around crying about not having wands, we have our *own* powers now, with or without magic. If all your powers fail then we will all have lost something very precious, because your magic is the only hint we have as to how the universe must *really* work - but you won't be left scratching at the ground. Your houses will still be cool in summer and warm in winter, there will still be doctors and medicine. Science can keep you alive if magic fails. It'd be a tragedy, but not literally the end of all the light in the world. Just saying."

Draco had backed up several feet and his face was full of mixed fear and disbelief. " *What in the name of Merlin are you talking about, Potter?* "

"Hey, I listened to *your* story, won't you listen to mine?" *Clumsy*, Harry chided himself, but Draco actually did stop backing off and seem to listen.

"Anyway," Harry said, "I'm saying that you don't seem to have been paying much attention to what goes on in the Muggle world." Probably because the whole wizarding world seemed to regard the rest of Earth as a slum, deserving around as much news coverage as the *Financial Times* awarded to the routine agonies of Burundi. "All right. Quick check. Have wizards ever been to the Moon? You know, that thing?" Harry pointed up to that huge and distant globe.

" *What?* " Draco said. It was pretty clear the thought had never occurred to the boy. " *Go* to the - it's just a - " His finger pointed at the little pale thingy in the sky. "You can't Apparate to somewhere you've never *been* and how would anyone get to the Moon in the *first* place?"

"Hold on," Harry said to Draco, "I'd like to show you a book I brought with me, I think I remember what box it's in." And Harry stood up and knelt down and yanked out the stairs to the cavern level of his trunk, then tore down the stairs and heaved a box off another box, coming perilously close to treating his books with disrespect, and snatched off the box cover and quickly but carefully pried out a stack of books -

(Harry had inherited the nigh-magical Verres ability to remember where all his books were, even after seeing them just once, which was rather mysterious considering the lack of any genetic connection.)

And Harry raced back up the stairs and shoved the staircase back into the trunk with his heel, and, panting, turned the pages of the book until he found the picture he wanted to show to Draco.

The one with the white, dry, cratered land, and the suited people, and the blue-white globe hanging over it all.

That picture.

*The* picture, if only one picture in all the world were to survive.

" *That* , " Harry said, his voice trembling because he couldn't quite keep the pride out, "is what the Earth looks like from the Moon."

Draco slowly leaned over. There was a strange expression on his young face. "If that's a *real* picture, why isn't it moving?"

*Moving?* Oh. "Muggles can do moving pictures but they need a bigger box to show it, they can't fit them onto single book pages yet."

Draco's finger moved to one of the suits. "What are those?" His voice starting to waver.

"Those are human beings. They are wearing suits that cover their whole bodies to give them air, because there is no air on the Moon."



"That's impossible," Draco whispered. There was terror in his eyes, and utter confusion. "No Muggle could ever do that. *How...*"

Harry took back the book, flipped the pages until he found what he saw. "This is a rocket going up. The fire pushes it higher and higher, until it gets to the Moon." Flipped pages again. "This is a rocket on the ground. That tiny speck next to it is a person." Draco gasped. "Going to the Moon cost the equivalent of... probably around a thousand million Galleons." Draco choked. "And it took the efforts of... probably more people than live in all of magical Britain." *And when they arrived, they left a plaque that said, 'We came in peace, for all mankind.' Though you're not yet ready to hear those words, Draco Malfoy...*

"You're telling the truth," Draco said slowly. "You wouldn't fake a whole book just for this - and I can hear it in your voice. But... but..."

"How, without wands or magic? It's a long story, Draco. Science doesn't work by waving wands and chanting spells, it works by knowing how the universe works on such a deep level that you know exactly what to do in order to make the universe do what you want. If magic is like casting *Imperio* on someone to make them do what you want, then science is like knowing them so well that you can convince them it was their own idea all along. It's a lot more difficult than waving a wand, but it works when wands fail, just like if the *Imperius* failed you could still try persuading a person. And Science builds from generation to generation. You have to really *know* what you're doing to do science - and when you really understand something, you can explain it to someone else. The greatest scientists of one century ago, the brightest names that are still spoken with reverence, their powers are as *nothing* to the greatest scientists of today. There is no equivalent in science of your lost arts that raised Hogwarts. In science our powers wax by the year. And we are beginning to understand and unravel the secrets of life and inheritance. We'll be able to look at the very blood of which you spoke, and see what makes you a wizard, and in one or two more generations, we'll be able to persuade that blood to make all your children powerful wizards too. So you see, your problem isn't nearly as bad as it looks, because in a few more decades, science will be able to solve it for you."

"But..." Draco said. His voice was trembling. "If *Muggles* have that kind of power... then... what are *we*?"

"No, Draco, that's not it, don't you see? Science taps the power of human understanding to look at the world and figure out how it works. It can't fail without humanity itself failing. Your magic could turn off, and you would hate that, but you would still be *you*. You would still be alive to regret it. But because science rests upon my human intelligence, it is the power that cannot be removed from me without removing *me*. Even if the laws of the universe change on me, so that all my knowledge is void, I'll just figure out the new laws, as has been done before. It's not a *Muggle* thing, it's a *human* thing, it just refines and trains the power you use every time you look at something you don't understand and ask 'Why?' You're of Slytherin, Draco, don't you see the implication?"

Draco looked up from the book to Harry. His face showed dawning understanding. "Wizards can learn to use this power."

Very carefully, now... the bait is set, now the hook... "If you can learn to think of yourself as a *human* instead of a *wizard* then you can train and refine your powers as a human."

And if *that* instruction wasn't in *every* science curriculum, Draco didn't need to know it, did he?

Draco's eyes were now thoughtful. "You've... already done this?"

"To some extent," Harry allowed. "My training isn't complete. Not at eleven. But - my father *also* bought me tutors, you see." Sure, they'd been starving grad students, and it had only been because Harry slept on a 26-hour cycle, but leave all that aside for now...

Slowly, Draco nodded. "You think you can master *both* arts, add the powers together, and..." Draco stared at Harry. "Make yourself Lord of the two worlds?"

Harry gave an evil laugh, it just seemed to come naturally at that point. "You have to realise, Draco, that the whole world you know, all of magical Britain, is just one square on a much larger gameboard. The gameboard

that includes places like the Moon, and the stars in the night sky, which are lights just like the Sun only unimaginably far away, and things like galaxies that are vastly huger than the Earth and Sun, things so large that only scientists can see them and you don't even know they exist. But I really *am* Ravenclaw, you know, not Slytherin. I don't want to rule the universe. I just think it could be more sensibly organised."

There was awe on Draco's face. "Why are you telling *me* this?"

"Oh... there aren't many people who know how to do *true* science - understanding something for the very first time, even if it confuses the hell out of you. Help would be helpful."

Draco stared at Harry with his mouth open.

"But make no mistake, Draco, true science really *isn't* like magic, you can't just do it and walk away unchanged like learning how to say the words of a new spell. The power comes with a cost, a cost so high that most people refuse to pay it."

Draco nodded at this as though, finally, he'd heard something he could understand. "And that cost?"

"Learning to admit you're wrong."

"Um," Draco said after the dramatic pause had stretched on for a while. "You going to explain that?"

"Trying to figure out how something works on that deep level, the first ninety-nine explanations you come up with are wrong. The hundredth is right. So you have to learn how to admit you're wrong, over and over and over again. It doesn't sound like much, but it's so hard that most people can't do science. Always questioning yourself, always taking another look at things you've always taken for granted," like having a Snitch in Quidditch, "and every time you change your mind, you change yourself. But I'm getting way ahead of myself here. Way ahead of myself. I just want you to know... I'm offering to share some of my knowledge. If you want. There's just one condition."

"Uh huh," Draco said. "You know, Father says that when someone says that to you, it is never a good sign, ever."

Harry nodded. "Now, don't mistake me and think that I'm trying to drive a wedge between you and your father. It's not about that. It's just about me wanting to deal with someone my own age, rather than having this be between me and Lucius. I think your father would be okay with that too, he knows you have to grow up sometime. But your moves in our game have to be your own. That's my condition - that I'm dealing with you, Draco, not your father."

"I've got to go," Draco said. He stood up. "I've got to go off and think about this."

"Take your time," Harry said.

The sounds of the train platform changed from blurs into murmurs as Draco wandered off.

Harry slowly exhaled the air he'd been holding in without quite realising it, and then looked at the watch on his wrist, a simple mechanical model that his father had bought him in hope it would work in magic's presence. The second-hand was still ticking, and if the minute hand was right, then it wasn't quite eleven just yet. He probably ought to get on the train soon and start looking for whatsherface, but it seemed worth taking a few minutes first to do some breathing exercises and see if his blood warmed up again.

But when Harry looked up from his watch, he saw two figures approaching, looking utterly ridiculous with their faces cloaked by winter scarves.

"Hello, Mr. Bronze," said one of the masked figures. "Can we interest you in joining the Order of Chaos?"



*Aftermath:*

## CHAPTER 7

Not too long after that, when all that day's fuss had finally subsided, Draco was bent over a desk with quill in hand. He had a private room in the Slytherin dungeons, with its own desk and its own fire - sadly not even *he* rated a connection to the Floo system, but at least Slytherin didn't buy into that utter nonsense about making *everyone* sleep in dorms. There weren't many private rooms, you had to be the *very* best within the House of the better sort, but that could be taken for granted with the House of Malfoy.

*Dear Father,* Draco wrote.

And then he stopped.

Ink slowly dripped from his quill, staining the parchment near the words.

Draco wasn't stupid. He was young, but his tutors had trained him well. Draco knew that Potter probably felt a lot more sympathy towards Dumbledore's faction than Potter was letting on... though Draco did think Potter could be tempted. But it was crystal clear that Potter was trying to tempt Draco just as Draco was trying to tempt him.

And it was also clear that Potter was brilliant, and a whole lot more than just slightly mad, and playing a vast game that Potter himself mostly didn't understand, improvised at top speed with the subtlety of a rampaging nundu. But Potter had managed to choose a tactic that Draco couldn't just walk away from. He had offered Draco a part of his own power, gambling that Draco couldn't use it without becoming more like him. His father had called this an advanced technique, and had warned Draco that it often didn't work.

Draco knew he hadn't understood everything that had happened... but Potter had offered *him* the chance to play and right now it was *his*. And if he blurted the whole thing out, it would become Father's.

In the end it was as simple as that. The lesser techniques require the unawareness of the target, or at least their uncertainty. Flattery has to be plausibly disguised as admiration. ("You should have been in Slytherin" is an old classic, highly effective on a certain type of person who isn't expecting it, and if it works you can repeat it.) But when you find someone's ultimate lever it doesn't matter if they know you know. Potter, in his mad rush, had guessed a key to Draco's soul. And if Draco knew that Potter knew it - even if it had been an obvious sort of guess - that didn't change anything.

So now, for the first time in his life, he had real secrets to keep. He was playing his own game. There was an obscure pain to it, but he knew that Father would be proud, and that made it all right.

Leaving the ink drippings in place - there was a message there, and one that his father would understand, for they had played the game of subtleties more than once - Draco wrote out the one question that really had gnawed at him about the whole affair, the part that it seemed he *ought* to understand, but he didn't, not at all.

*Dear Father:*

*Suppose I told you that I met a student at Hogwarts, not already part of our circle of acquaintances, who called you a 'flawless instrument of death' and said that I was your 'one weak point'. What would you say about him?*

It didn't take long after that for the family owl to bring the reply.

*My beloved son:*

*I would say that you had been so fortunate as to meet someone who enjoys the intimate confidence of our friend and valuable ally, Severus Snape.*

Draco stared at the letter for a while, and finally threw it into the fire.

# CHAPTER 8

## POSITIVE BIAS

All these worlds are J. K. Rowling's, except Europa. Attempt no fanfics there.



One alert reviewer asked whether, if Luna is a seer, that means this is going to be an HPDM bottom!Draco mpreg fic. I regret that FFN does not allow me any larger font size in which to say **NO** . It honestly hadn't occurred to me that Luna might be a *real* seer - I'll have to decide whether to run with that or not - but I think we can all safely assume that if Luna *is* a seer, she said something about "light planting a seed in darkness", and Xenophilius, as always, interpreted this in rather the wrong way.



*"Allow me to warn you that challenging my ingenuity is a dangerous sort of project, and may tend to make your life a lot more surreal."*



No one had asked for help, that was the problem. They'd just gone around talking, eating, or staring into the air while their parents exchanged gossip. For whatever odd reason, no one had been sitting down reading a book, which meant she couldn't just sit down next to them and take out her own book. And even when she'd boldly taken the initiative by sitting down and continuing her third read-through of *Hogwarts: A History*, no one had seemed inclined to sit down next to her.

Aside from helping people with their homework, or anything else they needed, she really didn't know how to meet people. She didn't *feel* like she was a shy person. She thought of herself as a take-charge sort of girl. And yet, somehow, if there wasn't some request along the lines of "I can't remember how to do long division" then it was just too *awkward* to go up to someone and say... what? She'd never been able to figure out what. And there didn't seem to be a standard information sheet, which was ridiculous. The whole business of meeting people had never seemed sensible to her. Why did *she* have to take all the responsibility herself when there were

## CHAPTER 8

two people involved? Why didn't adults ever help? She wished some other girl would just walk up to *her* and say, "Hermione, the teacher told me to be friends with you."

But let it be quite clear that Hermione Granger, sitting alone on the first day of school in one of the few compartments that had been empty, in the last carriage of the train, with the compartment door left open just in case anyone for any reason wanted to talk to her, was *not* sad, lonely, gloomy, depressed, despairing, or obsessing about her problems. She was, rather, rereading *Hogwarts: A History* for the third time and quite enjoying it, with only a faint tinge of annoyance in the back of her mind at the general unreasonableness of the world.

There was the sound of an inter-train door opening, and then footsteps and an odd slithering sound coming down the hallway of the train. Hermione laid aside *Hogwarts: A History* and stood up and stuck her head outside - just in case someone needed help - and saw a young boy in a wizard's dress robes, probably first or second year going by his height, and looking quite silly with a scarf wrapped around his head. A small trunk stood on the floor next to him. Even as she saw him, he knocked on the door of another, closed compartment, and he said in a voice only slightly muffled by the scarf, "Excuse me, can I ask a quick question?"

She didn't hear the answer from inside the compartment, but after the boy opened the door, she did think she heard him say - unless she'd somehow misheard - "Does anyone here know the six quarks or where I can find a first-year girl named Hermione Granger?"

After the boy had closed that compartment door, Hermione said, "Can I help you with something?"

The scarfed face turned to look at her, and the voice said, "Not unless you can name the six quarks or tell me where to find Hermione Granger."

"Up, down, strange, charm, truth, beauty, and why are you looking for her?"

It was hard to tell from this distance, but she thought she saw the boy grin widely under his scarf. "Ah, so *you're* a first-year girl named Hermione Granger," said that young, muffled voice. "On the train to Hogwarts, no less." The boy started to walk towards her and her compartment, and his trunk slithered along after him. "Technically, all I needed to do was *look* for you, but it seems likely that I'm meant to talk to you or invite you to join my party or get a key magical item from you or find out that Hogwarts was built over the ruins of an ancient temple or something. PC or NPC, that is the question?"

Hermione opened her mouth to reply to this, but then she couldn't think of any *possible* reply to... *whatever* it was she'd just heard, even as the boy walked over to her, looked inside the compartment, nodded with satisfaction, and sat down on the bench across from her own. His trunk scurried in after him, grew to three times its former diameter and snuggled up next to her own in an oddly disturbing fashion.

"Please, have a seat," said the boy, "and do please close the door behind you, if you would. Don't worry, I don't bite anyone who doesn't bite me first." He was already unwinding the scarf from around his head.

The imputation that this boy thought she was *scared* of him made her hand send the door sliding shut, jamming it into the wall with unnecessary force. She spun around and saw a young face with bright, laughing green eyes, and an angry red-dark scar set into his forehead that reminded her of something in the back of her mind but right now she had more important things to think about. "I didn't say I was Hermione Granger!"

"I didn't say you *said* you were Hermione Granger, I just said you were Hermione Granger. If you're asking how I know, it's because I know everything. Good evening ladies and gentlemen, my name is Harry James Potter-Evans-Verres or Harry Potter for short, I know that probably doesn't mean anything to *you* for a change -"

Hermione's mind finally made the connection. The scar on his forehead, the shape of a lightning bolt. "Harry Potter! You're in *Modern Magical History* and *The Rise and Fall of the Dark Arts* and *Great Wizarding Events of the Twentieth Century*." It was actually the very first time in her whole life that she'd *met* someone from inside a *book*, and it was a rather odd feeling.

The boy blinked three times. "I'm in *books*? Wait, of course I'm in books... what a strange thought."

"Goodness, didn't you know?" said Hermione. "I'd have found out everything I could if it was me."

The boy spoke rather dryly. "Miss Granger, it has been less than 72 hours since I went to Diagon Alley and discovered my claim to fame. I have spent the last two days buying science books. *Believe me*, I intend to find out everything I can." The boy hesitated. "What *do* the books say about me?"

Hermione Granger's mind flashed back, she hadn't realised she would be tested on *those* books so she'd read them only once, but it was just a month ago so the material was still fresh in her mind. "You're the only one who's survived the Killing Curse so you're called the Boy-Who-Lived. You were born to James Potter and Lily Potter formerly Lily Evans on the 31st of July 1980. On the 31st of October 1981 the Dark Lord He-Who-Must-Not-Be-Named though I don't know why not attacked your home. You were found alive with the scar on your forehead in the ruins of your parents' house near the burnt remains of You-Know-Who's body. Chief Warlock Albus Percival Wulfric Brian Dumbledore sent you off somewhere, no one knows where. *The Rise and Fall of the Dark Arts* claims that you survived because of your mother's love and that your scar contains all of the Dark Lord's magical power and that the centaurs fear you, but *Great Wizarding Events of the Twentieth Century* doesn't mention anything like that and *Modern Magical History* warns that there are lots of crackpot theories about you."

The boy's mouth was hanging open. "Were you told to wait for Harry Potter on the train to Hogwarts, or something like that?"

"No," Hermione said. "Who told you about *me*?"

"Professor McGonagall and I believe I see why. Do you have an eidetic memory, Hermione?"

Hermione shook her head. "It's not photographic, I've always wished it was but I had to read my school books five times over to memorize them all."

"Really," the boy said in a slightly strangled voice. "I hope you don't mind if I test that - it's not that I don't believe you, but as the saying goes, 'Trust, but verify'. No point in wondering when I can just do the experiment."

Hermione smiled, rather smugly. She so loved tests. "Go ahead."

The boy stuck a hand into a pouch at his side and said "Magical Drafts and Potions by Arsenius Jigger". When he withdrew his hand it was holding the book he'd named.

Instantly Hermione wanted one of those pouches more than she'd ever wanted anything.

The boy opened the book to somewhere in the middle and looked down. "If you were making *oil of sharpness* \_"

"I can *see* that page from here, you know!"

The boy tilted the book so that she couldn't see it any more, and flipped the pages again. "If you were brewing a *potion of spider climbing*, what would be the next ingredient you added after the Acromantula silk?"

"After dropping in the silk, wait until the potion has turned exactly the shade of the cloudless dawn sky, 8 degrees from the horizon and 8 minutes before the tip of the sun first becomes visible. Stir eight times widdershins and once deasil, and then add eight drams of unicorn bogies."

The boy shut the book with a sharp snap and put the book back into his pouch, which swallowed it with a small burping noise. "Well well well *well* well well. I should like to make you a proposition, Miss Granger."

"A proposition?" Hermione said suspiciously. Girls weren't supposed to listen to those.

It was also at this point that Hermione realised the other thing - well, one of the things - which was odd about the boy. Apparently people who were *in* books actually *sounded* like a book when they talked. This was quite the surprising discovery.

The boy reached into his pouch and said, "can of pop", retrieving a bright green cylinder. He held it out to her and said, "Can I offer you something to drink?"

Hermione politely accepted the fizzy drink. In fact she *was* feeling sort of thirsty by now. "Thank you very much," Hermione said as she popped the top. "Was that your proposition?"

## CHAPTER 8

The boy coughed. "No," he said. Just as Hermione started to drink, he said, "I'd like you to help me take over the universe."

Hermione finished her drink and lowered the can. "No thank you, I'm not evil."

The boy looked at her in surprise, as though he'd been expecting some other answer. "Well, I was speaking a bit rhetorically," he said. "In the sense of the Baconian project, you know, not political power. 'The effecting of all things possible' and so on. I want to conduct experimental studies of spells, figure out the underlying laws, bring magic into the domain of science, merge the wizarding and Muggle worlds, raise the entire planet's standard of living, move humanity centuries ahead, discover the secret of immortality, colonize the Solar System, explore the galaxy, and most importantly, figure out what the heck is really going on here because all of this is blatantly impossible."

That sounded a bit more interesting. "And?"

The boy stared at her incredulously. " *And?* That's not *enough?* "

"And what do you want from me?" said Hermione.

"I want you to help me do the research, of course. With your encyclopedic memory added to my intelligence and rationality, we'll have the Baconian project finished in no time, where by 'no time' I mean probably at least thirty-five years."

Hermione was beginning to find this boy annoying. "I haven't seen you do anything intelligent. Maybe I'll let *you* help me with *my* research."

There was a certain silence in the compartment.

"So you're asking me to demonstrate my intelligence, then," said the boy after a long pause.

Hermione nodded.

"I warn you that challenging my ingenuity is a dangerous project, and tends to make your life a lot more surreal."

"I'm not impressed yet," Hermione said. Unnoticed, the green drink once again rose to her lips.

"Well, maybe *this* will impress you," the boy said. He leaned forward and looked at her intensely. "I've already done a bit of experimenting and I found out that I don't need the wand, I can make anything I want happen just by snapping my fingers."

It came just as Hermione was in the middle of swallowing, and she choked and coughed and expelled the bright green fluid.

Onto her brand new, never-worn witch's robes, on the very first day of school.

Hermione actually screamed. It was a high-pitched sound that sounded like an air raid siren in the closed compartment. " *Eek! My clothes!* "

"Don't panic!" said the boy. "I can fix it for you. Just watch!" He raised a hand and snapped his fingers.

"You'll -" Then she looked down at herself.

The green fluid was still there, but even as she watched, it started to vanish and fade and within just a few moments, it was like she'd never spilled anything at herself.

Hermione stared at the boy, who was wearing a rather smug sort of smile.

Wordless wandless magic! At *his* age? When he'd only gotten the schoolbooks *three days* ago?

Then she remembered what she'd read, and she gasped and flinched back from him. *All the Dark Lord's magical power! In his scar!*

She rose hastily to her feet. "I, I, I need to go the toilet, wait here all right -" she had to find a grownup she had to tell them -

The boy's smile faded. "It was just a trick, Hermione. I'm sorry, I didn't mean to scare you."

Her hand halted on the door handle. "A *trick?* "

"Yes," said the boy. "You asked me to demonstrate my intelligence. So I did something apparently impossible, which is always a good way to show off. I can't *really* do anything just by snapping my fingers." The

boy paused. "At least I don't *think* I can, I've never actually tested it experimentally." The boy raised his hand and snapped his fingers again. "Nope, no banana."

Hermione was as confused as she'd ever been in her life.

The boy was now smiling again at the look on her face. "I did *warn* you that challenging my ingenuity tends to make your life surreal. Do remember this the next time I warn you about something."

"But, but," Hermione stammered. "What did you *do*, then?"

The boy's gaze took on a measuring, weighing quality that she'd never seen before from someone her own age. "You think you have what it takes to be a scientist in your own right, with or without my help? Then let's see how *you* investigate a confusing phenomenon."

"I..." Hermione's mind went blank for a moment. She loved tests but she'd never had a test like *this* before. Frantically, she tried to cast back for anything she'd read about what scientists were supposed to do. Her mind skipped gears, ground against itself, and spat back the instructions for doing a science investigation project:

*Step 1: Form a hypothesis.*

*Step 2: Do an experiment to test your hypothesis.*

*Step 3: Measure the results.*

*Step 4: Make a cardboard poster.*

Step 1 was to form a hypothesis. That meant, try to think of something that *could* have happened just now. "All right. My hypothesis is that you cast a Charm on my robes to make anything spilled on it vanish."

"All right," said the boy, "is that your answer?"

The shock was wearing off, and Hermione's mind was starting to work properly. "Wait, that can't be right. I didn't see you touch your wand or say any spells so how could you have cast a Charm?"

The boy waited, his face neutral.

"But suppose all the robes come from the store with a Charm *already* on them to keep them clean, which would be a useful sort of Charm for them to have. You found that out by spilling something on *yourself* earlier."

Now the boy's eyebrows lifted. "Is *that* your answer?"

"No, I haven't done Step 2, 'Do an experiment to test your hypothesis.'"

The boy closed his mouth again, and began to smile.

Hermione looked at the drinks can, which she'd automatically put into the cupholder at the window. She took it up and peered inside, and found that it was around one-third full.

"Well," said Hermione, "the experiment I want to do is to pour it on my robes and see what happens, and my prediction is that the stain will disappear. Only if it *doesn't* work, my robes will be stained, and I don't want that."

"Do it to mine," said the boy, "that way you don't have to worry about your robes getting stained."

"But -" Hermione said. There was something *wrong* with that thinking but she didn't know how to say it exactly.

"I have spare robes in my trunk," said the boy.

"But there's nowhere for you to change," Hermione objected. Then she thought better of it. "Though I suppose I could leave and close the door -"

"I have somewhere to change in my trunk, too."

Hermione looked at his trunk, which, she was beginning to suspect, was rather more special than her own.

"All right," Hermione said, "since you say so," and she rather gingerly poured a bit of green pop onto a corner of the boy's robes. Then she stared at it, trying to remember how long the original fluid had taken to disappear...

And the green stain vanished!

Hermione let out a sigh of relief, not least because this meant she wasn't dealing with all of the Dark Lord's magical power.



## CHAPTER 8

Well, Step 3 was measuring the results, but in this case that was just seeing that the stain had vanished. And she supposed she could probably skip Step 4, about the cardboard poster. "My answer is that the robes are Charmed to keep themselves clean."

"Not quite," said the boy.

Hermione felt a stab of disappointment. She really wished she *wouldn't* have felt that way, the boy wasn't a teacher, but it was still a test and she'd gotten a question wrong and that always felt like a little punch in the stomach.

(It said almost everything you needed to know about Hermione Granger that she had never let that stop her, or even let it interfere with her love of being tested.)

"The sad thing is," said the boy, "you probably did everything the book told you to do. You made a prediction that would distinguish between the robe being charmed and not charmed, and you tested it, and rejected the null hypothesis that the robe was not charmed. But unless you read the very, very best sort of books, they won't quite teach you how to do science *properly*. Well enough to *really* get the right answer, I mean, and not just churn out another publication like Dad always complains about. So let me try to explain - without giving away the answer - what you did wrong this time, and I'll give you another chance."

She was starting to resent the boy's oh-so-superior tone when he was just another eleven-year-old like her, but that was secondary to finding out what she'd done wrong. "All right."

The boy's expression grew more intense. "This is a game based on a famous experiment called the 2-4-6 task, and this is how it works. I have a *rule* - known to me, but not to you - which fits some triplets of three numbers, but not others. 2-4-6 is one example of a triplet which fits the rule. In fact... let me write down the rule, just so you know it's a fixed rule, and fold it up and give it to you. Please don't look, since I infer from earlier that you can read upside-down."

The boy said "paper" and "mechanical pencil" to his pouch, and she shut her eyes tightly while he wrote.

"There," said the boy, and he was holding a tightly folded piece of paper. "Put this in your pocket," and she did.

"Now the way this game works," said the boy, "is that you give me a triplet of three numbers, and I'll tell you 'Yes' if the three numbers are an instance of the rule, and 'No' if they're not. I am Nature, the rule is one of my laws, and you are investigating me. You already know that 2-4-6 gets a 'Yes'. When you've performed all the further experimental tests you want - asked me as many triplets as you feel necessary - you stop and guess the rule, and then you can unfold the sheet of paper and see how you did. Do you understand the game?"

"Of course I do," said Hermione.

"Go."

"4-6-8" said Hermione.

"Yes," said the boy.

"10-12-14", said Hermione.

"Yes," said the boy.

Hermione tried to cast her mind a little further afield, since it seemed like she'd already done all the testing she needed, and yet it couldn't be that easy, could it?

"1-3-5."

"Yes."

"Minus 3, minus 1, plus 1."

"Yes."

Hermione couldn't think of anything else to do. "The rule is that the numbers have to increase by two each time."

"Now suppose I tell you," said the boy, "that this test is harder than it looks, and that only 20% of grownups get it right."

Hermione frowned. What had she missed? Then, suddenly, she thought of a test she still needed to do.

"2-5-8!" she said triumphantly.

"Yes."

"10-20-30!"

"Yes."

"The real answer is that the numbers have to go up by the *same* amount each time. It doesn't have to be 2."

"Very well," said the boy, "take the paper out and see how you did."

Hermione took the paper out of her pocket and unfolded it.

*Three real numbers in increasing order, lowest to highest.*

Hermione's jaw dropped. She had the distinct feeling of something terribly unfair having been done to her, that the boy was a dirty rotten cheating liar, but when she cast her mind back she couldn't think of any wrong responses that he'd given.

"What you've just discovered is called 'positive bias'," said the boy. "You had a rule in your mind, and you kept on thinking of triplets that should make the rule say 'Yes'. But you didn't try to test any triplets that should make the rule say 'No'. In fact you didn't get a *single* 'No', so 'any three numbers' could have just as easily been the rule. It's sort of like how people imagine experiments that could confirm their hypotheses instead of trying to imagine experiments that could falsify them - that's not quite exactly the same mistake but it's close. You have to learn to look on the negative side of things, stare into the darkness. When this experiment is performed, only 20% of grownups get the answer right. And many of the others invent fantastically complicated hypotheses and put great confidence in their wrong answers since they've done so many experiments and everything came out like they expected."

"Now," said the boy, "do you want to take another shot at the original problem?"

His eyes were quite intent now, as though this were the *real* test.

Hermione shut her eyes and tried to concentrate. She was sweating underneath her robes. She had an odd feeling that this was the hardest she'd ever been asked to think on a test or maybe even the *first* time she'd ever been asked to think on a test.

What other experiment could she do? She had a Chocolate Frog, could she try to rub some of that on the robes and see if *it* vanished? But that still didn't seem like the kind of twisty negative thinking the boy was asking for. Like she was still asking for a 'Yes' if the Chocolate Frog stain disappeared, rather than asking for a 'No'.

So... on her hypothesis... when should the pop... *not* vanish?

"I have an experiment to do," Hermione said. "I want to pour some pop on the floor, and see if it *doesn't* vanish. Do you have some paper towels in your pouch, so I can mop up the spill if this doesn't work?"

"I have napkins," said the boy. His face still looked neutral.

Hermione took the can, and poured a small bit of pop onto the floor.

A few seconds later, it vanished.

Then the realisation hit her and she felt like kicking herself. "Of course! *You* gave me that can! It's not the robe that's enchanted, it was the pop all along!"

The boy stood up and bowed to her solemnly. He was grinning widely now. "Then... may I help you with your research, Hermione Granger?"

"I, ah..." Hermione was still feeling the rush of euphoria, but she wasn't quite sure about how to answer *that*.

They were interrupted by a weak, tentative, faint, rather *reluctant* knocking at the door.

The boy turned and looked out the window, and said, "I'm not wearing my scarf, so can you get that?"

It was at this point that Hermione realised why the boy - no, the Boy-Who-Lived, Harry Potter - had been wearing the scarf over his head in the first place, and felt a little silly for not realising it earlier. It was actually

## CHAPTER 8

sort of odd, since she would have thought Harry Potter would proudly display himself to the world; and the thought occurred to her that he might actually be shyer than he seemed.

When Hermione pulled the door open, she was greeted by a trembling young boy who looked exactly like he knocked.

"Excuse me," said the boy in a tiny voice, "I'm Neville Longbottom. I'm looking for my pet toad, I, I can't seem to find it anywhere on this carriage... have you seen my toad?"

"No," Hermione said, and then her helpfulness kicked in full throttle. "Have you checked all the other compartments?"

"Yes," whispered the boy.

"Then we'll just have to check all the other carriages," Hermione said briskly. "I'll help you. My name is Hermione Granger, by the way."

The boy looked like he might faint with gratitude.

"Hold on," came the voice of the *other* boy - Harry Potter. "I'm not sure that's the best way to do it."

At this Neville looked like he might cry, and Hermione swung around, angered. If Harry Potter was the sort of person who'd abandon a little boy just because he didn't want to be interrupted... "What? Why *not*?"

"Well," said Harry Potter, "It's going to take a while to check the whole train by hand, and we might miss the toad anyway, and if we didn't find it by the time we're at Hogwarts, he'd be in trouble. So what would make a lot more sense is if he went directly to the front carriage, where the prefects are, and asked a prefect for help. That was the first thing I did when I was looking for you, Hermione, although they didn't actually know. But they might have spells or magic items that would make it a lot easier to find a toad. We're only first-years."

That... *did* make a lot of sense.

"Do you think you can make it to the prefects' carriage on your own?" asked Harry Potter. "I've sort of got reasons for not wanting to show my face too much."

Suddenly Neville gasped and took a step back. "I remember that voice! You're one of the Lords of Chaos! *You're the one who gave me chocolate!*"

What? What what *what*?

Harry Potter turned his head from the window and rose dramatically. "I *never!*" he said, voice full of indignation. "Do I look like the sort of villain who would give sweets to a child?"

Neville's eyes widened. " *You're* Harry Potter? *The* Harry Potter? *You?* "

"No, just *a* Harry Potter, there are three of me on this train -"

Neville gave a small shriek and ran away. There was a brief pattering of frantic footsteps and then the sound of a carriage door opening and closing.

Hermione sat down hard on her bench. Harry Potter closed the door and then sat down next to her.

"Can you please explain to me what's going on?" Hermione said in a weak voice. She wondered if hanging around Harry Potter meant always being this confused.

"Oh, well, what happened was that Fred and George and I saw this poor small boy at the train station - the woman next to him had gone away for a bit, and he was looking really frightened, like he was sure he was about to be attacked by Death Eaters or something. Now, there's a saying that the fear is often worse than the thing itself, so it occurred to me that this was a lad who could actually benefit from seeing his worst nightmare come true and that it wasn't so bad as he feared -"

Hermione sat there with her mouth wide open.

"- and Fred and George came up with this spell to make the scarves over our faces darken and blur, like we were undead kings and those were our grave shrouds -"

She didn't like at all where this was going.

"- and after we were done giving him all the sweets I'd bought, we were like, 'Let's give him some money! Ha ha ha! Have some Knuts, boy! Have a silver Sickle!' and dancing around him and laughing evilly and so on. I

think there were some people in the crowd who wanted to interfere at first, but bystander apathy held them off at least until they saw what we were doing, and then I think they were all too confused to do anything. Finally he said in this tiny little whisper 'go away' so the three of us all screamed and ran off, shrieking something about the light burning us. Hopefully he won't be as scared of being bullied in the future. That's called desensitisation therapy, by the way."

Okay, she *hadn't* guessed right about where this was going.

The burning fire of indignation that was one of Hermione's primary engines sputtered into life, even though part of her *did* sort of see what they'd been trying to do. "That's awful! *You're* awful! That poor boy! What you did was *mean*!"

"I think the word you're looking for is *enjoyable*, and in any case you're asking the wrong question. The question is, did it do more good than harm, or more harm than good? If you have any arguments to contribute to *that* question I'm glad to hear them, but I won't entertain any other criticisms until that one is settled. I certainly agree that what I did *looks* all terrible and bullying and mean, since it involves a scared little boy and so on, but that's hardly the key issue now is it? That's called *consequentialism*, by the way, it means that whether an act is right or wrong isn't determined by whether it *looks* bad, or mean, or anything like that, the only question is how it will turn out in the end - what are the consequences."

Hermione opened her mouth to say something utterly *searing* but unfortunately she seemed to have neglected the part where she thought of something to say before opening her mouth. All she could come up with was, "What if he has *nightmares*?"

"Honestly, I don't think he needed our help to have nightmares, and if he has nightmares about *this* instead, then it'll be nightmares involving horrible monsters who give you chocolate and that was sort of the whole *point*."

Hermione's brain kept hiccupping in confusion every time she tried to get properly angry. "Is your life always this peculiar?" she said at last.

Harry Potter's face gleamed with pride. "I *make* it that peculiar. You're looking at the product of a lot of hard work and elbow grease."

"So..." Hermione said, and trailed off awkwardly.

"So," Harry Potter said, "how much science do you know exactly? I can do calculus and I know some Bayesian probability theory and decision theory and a lot of cognitive science, and I've read *The Feynman Lectures* (or volume 1 anyway) and *Judgment Under Uncertainty: Heuristics and Biases* and *Language in Thought and Action* and *Influence: Science and Practice* and *Rational Choice in an Uncertain World* and *Godel, Escher, Bach* and *A Step Farther Out* and -"

The ensuing quiz and counter-quiz went on for several minutes before being interrupted by another timid knock at the door. "Come in," she and Harry Potter said at almost the same time, and it slid back to reveal Neville Longbottom.

Neville *was* actually crying now. "I went to the front carriage and found a p-prefect but he t-told me that prefects weren't to be bothered over little things like m-missing toads."

The Boy-Who-Lived's face changed. His lips set in a thin line. His voice, when he spoke, was cold and grim. "What were his colours? Green and silver?"

"N-no, his badge was r-red and gold."

"*Red and gold*!" burst out Hermione. "But those are *Gryffindor's* colours!"

Harry Potter *hissed* at that, a frightening sort of sound that could have come from a live snake and made both her and Neville flinch. "I *suppose*," Harry Potter spat, "that finding some first-year's toad isn't *heroic* enough to be worthy of a *Gryffindor* prefect. Come on, Neville, *I'll* come with you this time, we'll see if the Boy-Who-Lived gets more attention. First we'll find a prefect who ought to know a spell, and if that doesn't work, we'll find a

## CHAPTER 8

prefect who isn't afraid of getting their hands dirty, and if *that* doesn't work, I'll start recruiting my fans and if we have to we'll take apart the whole train screw by screw."

The Boy-Who-Lived stood up and grabbed Neville's hand in his, and Hermione realised with a sudden brain hiccough that they were nearly the same size, even though some part of her had insisted that Harry Potter was a foot taller than that, and Neville at least six inches shorter.

"*Stay!*" Harry Potter snapped at her - no, wait, at his *trunk* - and he closed the door behind him firmly as he left.

She probably should have gone with them, but in just a brief moment Harry Potter had turned so scary that she was actually rather glad she hadn't thought to suggest it.

Hermione's mind was now so jumbled that she didn't even think she could properly read "History: A Hogwarts". She felt as if she'd just been run over by a steamroller and turned into a pancake. She wasn't sure what she was thinking or what she was feeling or why. She just sat by the window and stared at the moving scenery.

Well, she did at least know why she was feeling a little sad inside.

Maybe Gryffindor wasn't as wonderful as she had thought.

# CHAPTER 9

## TITLE REDACTED, PART I

All your base are belong to J. K. Rowling.



1,000 REVIEWS IN 26 DAYS WOOHOO AWESOME POWA! 30 DAYS 1,189 REVIEWS COMBO IS CONTINUING! YEAH! YOU PEOPLE ARE THE BEST! THIS IS SPARTAAAAA!

Ahem.

The third-generation quarks were also called "truth" and "beauty" before "top" and "bottom" won out; my birthdate is around Hermione's, and when I was eleven, I used "truth" and "beauty".

When Part I of this chapter was first posted, I said that if anyone guessed what the last sentence was talking about before the next update, I would tell them the entire rest of the plot.



*You never did know what tiny event might upset the course of your master plan.*



"Abbott, Hannah!"

Pause.

"HUFFLEPUFF!"

"Bones, Susan!"

Pause.

"HUFFLEPUFF!"

"Boot, Terry!"

Pause.

"RAVENCLAW!"

Harry glanced over briefly at his new House-mate, more to get a quick look at the face than anything else. He was still trying to get himself under control from his encounter with the ghosts. The sad, the really sad, the

really truly sad thing was that he *did* seem to be getting himself under control again. It seemed ill-fitting. Like he should have taken at least a day. Maybe a whole lifetime. Maybe just never.

"Corner, Michael!"

Long pause.

"RAVENCLAW!"

At the lectern before the huge Head Table stood Professor McGonagall, looking sharp and looking sharply around, as she called out one name after another, though she had smiled only for Hermione and a few others. Behind her, in the tallest chair at the table - really more of a golden throne - sat a wizened and bespectacled ancient, with a silver-white beard that looked like it would go almost to the floor if it were visible, watching over the Sorting with a benevolent expression; as stereotypical in appearance as a Wise Old Man could possibly be, without actually being Oriental. (Though Harry had learned to be wary of stereotypical appearances from the first time he'd met Professor McGonagall and thought that she ought to cackle.) The ancient wizard had applauded every student Sorted, with an unwavering smile that somehow seemed freshly delighted for each.

To the golden throne's left side was a man with sharp eyes and a dour face who had applauded no-one, and who somehow managed to be looking straight back at Harry every time Harry looked at him. Further to the left, the pale-faced man Harry had seen in the Leaky Cauldron, whose eyes darted around as though in panic at the surrounding crowd, and who seemed to occasionally jerk and twitch in his seat; for some reason Harry kept finding himself staring at him. To that man's left, a string of three older witches who didn't seem much interested in the students. Then to the right side of the tall golden chair, a round-faced middle-aged witch with a yellow hat, who had applauded every student except the Slytherins. A tiny man standing on his chair, with a poofy white beard, who had applauded every student, but smiled only upon the Ravenclaws. And on the farthest right, occupying the same space as three lesser beings, the mountainous entity who'd greeted them all after they'd disembarked from the train, naming himself Hagrid, Keeper of Keys and Grounds.

"Is the man standing on his chair the Head of Ravenclaw?" Harry whispered towards Hermione.

For once Hermione didn't answer this instantly; she was shifting constantly from side to side, staring at the Sorting Hat, and fidgeting so energetically that Harry thought her feet might be leaving the floor.

"Yes, he is," said one of the prefects who'd accompanied them, a young woman wearing the blue of Ravenclaw. Miss Clearwater, if Harry recalled correctly. Her voice was quiet, but conveyed a tinge of pride. "That is the Charms Professor of Hogwarts, Filius Flitwick, the most knowledgeable Charms Master alive, and a past Duelling Champion -"

"Why's he so *short*?" hissed a student whose name Harry didn't recall. "Is he a *halfbreed*?"

A chill glance from the young lady prefect. "The Professor does indeed have goblin ancestry -"

"What?" Harry said involuntarily, causing Hermione and four other students to hush him.

Now Harry was getting a surprisingly intimidating glare from the Ravenclaw prefect.

"I mean -" Harry whispered. "Not that I have a *problem* with that - it's just - I mean - how's that *possible*? You can't just mix two different species together and get viable offspring! It ought to scramble the genetic instructions for every organ that's different between the two species - it'd be like trying to build," they didn't have cars so he couldn't use a scrambled-engine-blueprints analogy, "a half-carriage half-boat or something..."

The Ravenclaw prefect was still looking at Harry severely. "Why *couldn't* you have a half-carriage half-boat?"

"*Hssh!*" hsshed another prefect, though the Ravenclaw witch had still spoken quietly.

"I mean -" Harry said even more quietly, trying to figure out how to ask whether goblins had evolved from humans, or evolved from a common ancestor of humans like *Homo erectus*, or if goblins had been *made* out of humans somehow - if, say, they were still genetically human under a heritable enchantment whose magical effect was diluted if only one parent was a 'goblin', which would explain how interbreeding was possible, and in which case goblins would *not* be an incredibly valuable second data point for how intelligence had evolved in other species besides *Homo sapiens* - now that Harry thought about it, the goblins in Gringotts *hadn't* seemed

very much like genuinely alien, nonhuman intelligences, nothing like Dirdir or Puppeteers - "I mean, where did goblins *come* from, anyway?"

"Lithuania," Hermione whispered absently, her eyes still fixed firmly on the Sorting Hat.

Now Hermione was getting a smile from the lady prefect.

"Never mind," whispered Harry.

At the lectern, Professor McGonagall called out, "Goldstein, Anthony!"

"RAVENCLAW!"

Hermione, next to Harry, was bouncing on her tiptoes so hard that her feet were actually leaving the ground on each bounce.

"Goyle, Gregory!"

There was a long, tense moment of silence under the Hat. Almost a minute.

"SLYTHERIN!"

"Granger, Hermione!"

Hermione broke loose and ran full tilt towards the Sorting Hat, picked it up and jammed the patchy old clothwork down hard over her head, making Harry wince. Hermione had been the one to explain to *him* about the Sorting Hat, but she certainly didn't *treat* it like an irreplaceable, vitally important, 800-year-old artefact of forgotten magic that was about to perform intricate telepathy on her mind and didn't seem to be in very good physical condition.

"RAVENCLAW!"

And talk about your foregone conclusions. Harry didn't see why Hermione had been so tense about it. In what weird alternative universe would that girl *not* be Sorted into Ravenclaw? If Hermione Granger didn't go to Ravenclaw then there was no good reason for Ravenclaw House to exist.

Hermione arrived at the Ravenclaw table and got a dutiful cheer; Harry wondered whether the cheer would have been louder, or quieter, if they'd had any idea just what level of competition they'd welcomed to their table. Harry knew pi to 3.141592 because accuracy to one part in a million was enough for most practical purposes. Hermione knew one hundred digits of pi because that was how many digits had been printed in the back of her maths textbook.

Neville Longbottom went to Hufflepuff, Harry was glad to see. If that House really did contain the loyalty and camaraderie it was supposed to exemplify, then a Houseful of reliable friends would do Neville a whole world of good. Clever kids in Ravenclaw, evil kids in Slytherin, wannabe heroes in Gryffindor, and everyone who does the actual work in Hufflepuff.

(Though Harry *had* been right to consult a Ravenclaw prefect first. The young woman hadn't even looked up from her reading or identified Harry, just jabbed a wand in Neville's direction and muttered something. After which Neville had acquired a dazed expression and wandered off to the fifth carriage from the front and the fourth compartment on the left, which indeed had contained his toad.)

"Malfoy, Draco!" went to Slytherin, and Harry breathed a small sigh of relief. It had *seemed* like a sure thing, but you never did know what tiny event might upset the course of your master plan.

Professor McGonagall called "Perks, Sally-Anne!", and from the gathered children detached a pale waifish girl who looked oddly ethereal - like she might mysteriously disappear the moment you stopped looking at her, and never be seen again or even remembered.

And then (with a note of trepidation so firmly kept from her voice and face that you'd have needed to know her very well indeed to notice) Minerva McGonagall inhaled deeply, and called out, "Potter, Harry!"

There was a sudden silence in the hall.

All conversation stopped.

All eyes turned to stare.



## CHAPTER 9

For the first time in his entire life, Harry felt like he might be having an opportunity to experience stage fright.

Harry immediately stomped down this feeling. Whole room-fulls of people staring at him was something he'd have to accustom himself to, if he wanted to live in magical Britain, or for that matter do anything else interesting with his life. Affixing a confident and false smile to his face, he raised a foot to step forwards -

"Harry Potter!" cried the voice of either Fred or George Weasley, and then "Harry Potter!" cried the other Weasley twin, and a moment later the entire Gryffindor table, and soon after a good portion of Ravenclaw and Hufflepuff, had taken up the cry.

*"Harry Potter! Harry Potter! Harry Potter!"*

And Harry Potter walked forwards. Much too slowly, he realized once he'd begun, but by then it was too late to alter his pace without it looking awkward.



*" Harry Potter! Harry Potter! HARRY POTTER!"*

With all too good a notion of what she would see, Minerva McGonagall turned to look behind herself at the rest of the Head Table.

Trelawney frantically fanning herself, Filius looking on with curiosity, Hagrid clapping along, Sprout looking severe, Vector and Sinistra bemused, and Quirrell gazing vacuously at nothing. Albus smiling benevolently. And Severus Snape gripping his empty wine goblet, white-knuckled, so hard that the silver was slowly deforming.

With a wide grin, turning his head to bow to one side and then the other as he walked between the four House tables, Harry Potter walked forwards at a grandly measured pace, a prince inheriting his castle.

*"Save us from some more Dark Lords!"* called one of the Weasley twins, and then the other Weasley twin cried, *"Especially if they're Professors!"* to general laughter from all the tables except Slytherin.

Minerva's lips set in a white line. She would have words with the Weasley Horrors about that last part, if they thought she was powerless because it was the first day of school and Gryffindor had no points to take away. If they didn't care about detentions then she would find something else.

Then, with a sudden gasp of horror, she looked in Severus's direction, *surely* he realized the Potter boy must have no idea who that was talking about -

Severus's face had gone beyond rage into a kind of pleasant indifference. A faint smile played about his lips. He was looking in the direction of Harry Potter, not the Gryffindor table, and his hands held the crumpled remains of a former wine goblet.



Harry Potter walked forwards with a fixed smile, feeling warm inside and sort of awful at the same time.

They were cheering him for a job he'd done when he was one year old. A job he hadn't really finished. Somewhere, somehow, the Dark Lord was still alive. Would they have been cheering quite so hard, if they knew that?

But the Dark Lord's power *had* been broken once.

And Harry would protect them again. If there was in fact a prophecy and that was what it said. Well, actually regardless of what any darn prophecy said.

All those people believing in him and cheering him - Harry couldn't stand to let that be false. To flash and fade like so many other child prodigies. To be a disappointment. To fail to live up to his reputation as a symbol of the Light, never mind *how* he'd gotten it. He would absolutely, positively, no matter how long it took and even if it killed him, fulfill their expectations. And then go on to *exceed* those expectations, so that people wondered, looking back, that they had once asked so little of him.

"HARRY POTTER! HARRY POTTER! HARRY POTTER!"

Harry took his last steps towards the Sorting Hat. He swept a bow to the Order of Chaos at the Gryffindor table, and then turned and swept another bow to the other side of the hall, and waited for the applause and giggling to die away.

(In the back of his mind, he wondered if the Sorting Hat was genuinely *conscious* in the sense of being aware of its own awareness, and if so, whether it was satisfied with only getting to talk to eleven-year-olds once per year. Its song had implied so: *Oh, I'm the Sorting Hat and I'm okay, I sleep all year and I work one day...* )

When there was once more silence in the room, Harry sat on the stool and *carefully* placed onto his head the 800-year-old telepathic artefact of forgotten magic.

Thinking, just as hard as he could: *Don't Sort me yet! I have questions I need to ask you! Have I ever been Obliviated? Did you Sort the Dark Lord when he was a child and can you tell me about his weaknesses? Can you tell me why I got the brother wand to the Dark Lord's? Is the Dark Lord's ghost bound to my scar and is that why I get so angry sometimes? Those are the most important questions, but if you've got another moment can you tell me anything about how to rediscover the lost magics that created you?*

Into the silence of Harry's spirit, where before there had never been any voice but one, there came a second and unfamiliar voice, sounding distinctly worried:

"Oh, dear. *This has never happened before...*"