Coping With Academic Anxiety and Stress

A Getting-Started Guide to Mindfullness

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Disclaimer

This document is provided solely to enable students who suffer from mid-exam panic attacks that significantly affect their performance to "help themselves" by learning a little bit about what is (often) happening and how they can develop a plan and take concrete steps to help prevent similar catastrophes taking future exams.

It is not intended to be a substitute for professional guidance, counselling, and therapy for diagnosed anxiety disorders, Post Traumatic Stress Disorder (PTSD), depression (which can produce a similar catastrophic underperformance for completely distinct reasons) or other named, diagnosable disorders, although its recommendations are generally benign and may well be of some help in a broader context than merely improving academic performance.

Students are **strongly encouraged to seek out specific academic, psychological or medical counseling** if they feel that their specific difficulties with exams are beyond the limited scope of this document.

Sources of Stress and Anxiety

Life is full of stress and fear. Global pandemics rage. War driven by simple greed rears its ugly head. The internet has been corrupted from the near-miraculous instant access to all of the knowledge in the world worthy of the name into a twisted, demented purveyor of politically convenient lies that mix seamlessly with the useful information still to be found.

Then, there are all of the expectations and threats piled on us by outside entities. Religions insist that we ***must*** believe a certain way or be tortured literally forever. Parents insist that we ***must*** become doctors, or lawyers, or perhaps engineers, or we will end up starving in a gutter and letting down our entire family unto the third generation – and they often still pay most of our bills and can thus arm-twist compliance with *their* expectations and goals (for us) even when they *completely differ* from our own.

Even our peers relentlessly push a set of expectations and beliefs that (for example) we will be a failure if we don't ***both*** party like there is no tomorrow ***and*** excel in all things athletic and academic and social (and be physically beautiful, socially adept, and basically all-around perfect at the same time).

To top it all off, we are all too often betrayed by our biologically predetermined brain chemistry or physical form that can create *obstacles*, in the form of depression, anxiety, or apparent inability to concentrate at the level required to fulfill all of these expectations, no matter what their source.

Enter the Monkey

Over time, all of these stressors and expectations are often internalized, becoming an internal voice that *refuses to shut up*, nagging, nagging, nagging in our ears, reminding us of our goals (whether or not they are *our* goals or somebody else's) and warning us of the enormously amplified consequences of the smallest degree of failure.

An excellent metaphor for this internal voice is the proverbial ***monkey on our back***, constantly yammering, yammering, yammering in our ear. The monkey takes over our interior monologue and renders our brains useless for anything resembling actual *thinking*, or *doing*. It is too busy with reminding us of the all of the evils that will ensue from *not thinking* or *not doing*.

The monkey can keep us from sleeping at night as it rehearses all of the failures of our day and warns us of all of the failures awaiting us tomorrow. The money screams at us when we don't remember something we *know* that we know, so loudly that we have no chance of actually remembering it. The monkey is never more intrusive than when we most need it to be quiet, so we can actually concentrate and work.

Monkey Mind vs Academic Performance

The "monkey" here is, of course, just a metaphor, but a surprisingly apt and effective one. Indeed, the specific phenomenon of anxiety linked to internalized expectations has been called "monkey mind" because those that suffer from it can instantly relate to the feedback loops this metaphorical monkey often creates, where one cannot think, or act, due to the monkey yammering about the consequences of failure brought about, paradoxically ***by the very yammering of the monkey itself!***

This phenomenon – and at least one *possible* solution to the problems it creates – is remarkably broad, but this presentation is intended to address a specific, commonplace instance where the monkey literally *destroys young lives*: significantly compromised academic performance, especially in the context of ***taking quizzes and exams***. However, anyone reading this should feel free to adopt its recommendations even if the monkey is more concerned about your failure to write a novel, pay your taxes on time, deal with the stresses caused by an untimely death among your loved ones, or just deal with all of the little things expected of you on a daily by those within your social or familial group.

In academic endeavors, however, it is comparatively easy to identify the scorched earth left behind by a monkey on a rampage. If you have ever stared at a page on an exam containing a problem you didn't instantly know how to solve, unable to think of anything *but* all of the horrific things that will happen to you when you fail to solve it (preventing you completely from actually solving it)... you've heard the evil cry of a:

Bad Monkey!

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The Scientific Basis of "The Monkey"

Of course, we know that there is no actual monkey. At the same time, those that suffer from it know that the co-opting of the interior monologue and the resulting instantaneous and devastating short-term loss in the ability to reason *at all* is very real! So it must have real causes. Just what are they?

Understanding them is an important part of learning to "quiet the monkey" and having the best chance of recovering the ability to function in times of stress in an academic setting. The fundamental basis is most likely an out-of-place corruption of the ***Fight or Flight Response***[1] – an evolved response of nearly all animals (including humans) to unexpected, potentially fatal threats. When an animal is threatened, its ***autonomic*** nervous system reacts in certain ways, affecting it both physiologically and mentally.

Reactions and sensitivies vary considerably across individuals, so one person (or animal) is likely to freeze in the face of the perceived threat – the proverbial "deer in the headlights" response – while another might flee the oncoming headlights, or still another might (incredible as it might seem) move *towards* them to "fight" them off.

Two things about this well understood, thoroughly documented, and nearly universal evolutionary response that you should keep in mind as you read this: The response is ***autonomic and unconscious***, not voluntary. It is therefore ***not your fault!*** Also, this response is ***entirely out of place*** in the classroom – your brain is perceiving the stress of taking an exam as a *threat* and triggering an inappropriate response!

[1]Wikipedia: http://www.wikipedia.org/wiki/Fight-or-flight_response. We'll abbreviate this **FoF** below.

...but, What About the *Monkey*...

Of course, the FoF response is only *part* of the problem. If it were, one might well initially become "aroused" by the threat, but then one would realize that there *is no* actual saber-toothed tiger approaching to potentially rip you apart that you must flee from or fight in a mental state that renders you "impervious" to pain and in a physical state of heightened strength and endurance!

At that point, the flood of catecholamines, hormones, and neurotransmitters released by the silly mistake of your brain interpreting a failure to immediately and instantly see an answer to a possibly difficult problem on an exam would *dissipate* and you would stop shaking, your heart rate would come down, you could breathe normally again, and finally, your brain would once again be able to function! For the sufferers, ***this does not happen!***

Enter "the monkey". The monkey is the key component of a *cognitive feedback loop* that maintains the state of arousal well past the point where (for example) you would continue reacting to unexpectedly walking up on a bear in the woods, once that bear had wandered away without any actual threat or intimate encounter. The monkey is generated by the sheer weight of all of those expectations (and to some extent, by the nature of the grading system which *is intrinsically* threatening in some very *real* ways, although not ones for which FoF is at all useful). Even *before* taking the exam, many will have concluded that failure on the exam will have enormously exaggerated negative consequences; all the monkey is doing is ***reminding them of this, continually, to the extent that they can't actually think of anything else!***

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Performance crushing exam anxiety is then *often*[2] the result of a pathological cognitive feedback loop:

1. Exam performance is given an exaggerated importance by the student, due to a mix of stressors or other factors like those surveyed on the first page of this guide.
2. The student "loads" these expectations into the monkey, so that the monkey can keep them (or so they might think) "on task", working maximally hard to succeed.
3. Unfortunately, it isn't the monkey that does the work, and the part of the many-leveled human mind that *does* advanced cognitive work is actively *inhibited* by the constant yammering of the monkey that reduces the attention paid to the actual challenge facing the student!
4. Even so, all is often well until the *first problem* that the student cannot instantly solve. Then *fight or flight* kicks in, the student's ability to work goes more or less to *zero*, and...
5. This kicks the monkey into high gear! Instead of just chattering, it is now in a panic, screaming into the student's inner ear!

[2] Note well, of course, that exam anxiety can *also* occur quite *reasonably* when a student simply hasn't done the work and doesn't know the material. But in most of those cases, it won't just be the exams that suffer, but homework performance, class attendance, etc all will be clearly differentiated from students who work hard but then freeze up on exams due to monkey-mind+FoF stress.

A Deer in the Headlights with a Monkey on its Back

Here's a fairly typical loop. I'm basing its content on the post-exam interviews of literally dozens of students who have exhibited this problem over the course of forty years of my teaching physics, a subject that seems ideally suited to triggering the response in students for whom a good grade performance is seen as *critical* for long term goals.

- (Student reads problem, already in a somewhat hyperaroused state, and...) "Oh my gosh. What the hell is this? I don't understand!" Many students will then reread the problem, calm down, perhaps ask a question of the instructor/proctor, and either make some progress or move on. For sufferers, however, *these are the last words of the student's own on-task interior monologue for a long time!*
- **Fight or Flight** kicks in. The student actually experiences physical symptoms – damp palms, shaking, shallow breathing. Words on the page lose their meaning. FoF is out of place: ***they can't flee***, and ***there is nothing to fight***, but no matter, ***they can't think*** as long as this state of arousal continues!
- **The Monkey**, muttering up to now somewhat in the background, now *takes over* and is *not* part of normal on-task cognition. It shouts: "I can't work! I'm going to flunk! If I flunk, my mother won't love me, I won't get into medical school, and my dog will bite me the minute I try to go home after flunking out and wasting all the money spent on sending me here! I'm terrified! I can't work! I'm going to flunk!..."
- Loop, usually until the exam is over and the perceived threat level finally *decreases*...

A True Story about the Monkey

Here are a couple of true stories from my teaching career about students hagridden by the monkey. As a graduate student, I often tutored introductory physics students for money. Helping one student right before an important exam, I guessed (from experience as a TA) what problems were *most* likely to be on her exam the next day, and we literally drilled those problems until she was perfect on them – both in execution and conceptual understanding.

A week later she brought in her graded exam, in tears. She got only a 15 out of 100! We went over it, and she got the first shortish problem for 10 points, got 5 points on the second problem worth 15 points, and left the three long problems worth 25 points each blank. I couldn't believe my eyes. All three were among the problems we had reviewed the night before the exam! Blank!

I asked her (trying to control my *own* breathing) why she didn't answer them – had she somehow blanked on the solutions? She then replied something that floored me:

"I got stuck on the second problem and couldn't think, and just couldn't finish it. I ran out of time before I got to the others..."

Back then I didn't really have a monkey metaphor in mind, and this seemed like simple insanity. All she had to do was ***skip the problem she was stuck on and collect 75 points for the last three to end up with an 85***. But now I see: ***the damn monkey wouldn't let her!***

Another True Monkey Story

This one takes place maybe fifteen years later, when I was teaching my own classes of introductory physics students. It was finals day, and I was proctoring the final exam in one of our large lecture halls. As time slowly ran down, I noticed a student sitting in the third row – a very *good* student to that point – who was staring at the exam, not working, clearly stressed – pale, shaking a bit. The student remained there, nearly immobile, for at least a half hour – I'm not sure when this all started.

I called time, everybody handed in their paper, and as the student arrived up front, clearly emotionally overwrought, I asked what was going on. Here is the reply, almost verbatim:

"I looked at the problem and my mind just went blank. I couldn't think about anything but how disappointed my parents were going to be when I flunked physics and couldn't get into medical school. I kept trying to read the problem and work on it, but I just couldn't get started."

Then came the line that, again, floored me: "Of course, now that the exam is over, I can see exactly what I needed to do. I'm so angry with myself!"

Curious, I sent the student to the board, where they did, in fact, work the problem absolutely perfectly in about three minutes. Since the professor is "god" in the classroom, I told the student "I think I'll just grade this work on the board instead of the blank space on your exam" and marked a perfect score down on the paper to give the student a happi*er* ending – but I couldn't restore all of the points missed elsewhere because of getting stuck. ***Damn you, evil monkey!***

A Case Study of Sorts

As my teaching career continued, I encountered the monkey time and again. I began to actively *fight* the monkey. I would explicitly instruct students to sort through the problems and do them in a sane order, low-hanging twenty point valuable fruit first, monkey-triggering five point problems that might freeze the brain last, etc. This helped some, but every semester, one or more students would significantly underperform, usually on a maximum-stress hour exam or the final.

Finally, I encountered one particular student that put the entire problem in perspective and pointed the way towards at least *one* possible solution. It was in a summer physics class I was teaching at the Duke Marine Lab (literally "the best place in the world to take/teach a physics class", by the way). I had a student we can call A(nxiety). Early in the session – only five weeks long, three chapters a week! – we had "Quiz Friday" (2-3 chapters' worth of quizzes one after the other) and A, who was obviously a very good student, did incredibly miserably on all three. We met to talk it over, and A admitted that this was a common experience with exams. A would learn it, but simply turn blank under the stress of any sort of exam (not just in physics).

A Strategy Emerges

Being (recall) "god", I decided to try a bit of an experiment. For the rest of the session, if A started to freeze up on a major exam, I gave A permission to just leave the classroom (on their honor, of course) and walk around outside where one could see the ocean, experience a delightful breeze, watch boats come and go. "Come back when your mind calms," I told A, "and when you come back work on a *different* problem than the one that triggered you if you can".

On the first hour exam, A approached me ten minutes into the exam for permission to go outside. Ten minutes later A came back in, worked for twenty minutes, and went out again. This repeated one more time before total accumulated time was up (I just remained after the other students finished and gave them a bit of extra time as well to be fair). A's score on the first exam was around a 75 – not spectacular, but *far better* than A had ever managed before!

On the second exam, following a pep talk about total freedom – again – to go outside, plus a few reminders about dodging triggers and working the easy problems first, A completed the exam with only a single exit, and managed an 85. A was literally ecstatic! Fear had been triggering the monkey, but just *knowing* that the monkey could be waited out without penalty was enough to keep it from emerging.

Victory! and, The Emergence of the Metaphor

A took the final without breaks, and scored an absolutely ordinary 93, enough to earn A an A, (minus, so to speak), with a replacement rule I'd implemented to objectively reward improvement for all students. A stayed in contact and (reportedly) ***never again struggled with an exam at Duke***.

That was roughly a decade ago. Since then, I have *actively* identified students who underperform for this specific reason (not, for example, because they "aren't working hard enough") and worked out a plan with them to cope with the monkey. The plan itself is given below – it involves things like:

- ***Adequate preparation*** to minimize fear of failure.
- A ***specific, prearranged*** strategy to use if/when brain freeze begins and the monkey starts to yammer.
- ***Mindfullness Practice!*** Meditation (as we shall see) is very nearly a specific process for ***quieting the monkey!***
- A certain amount of out-of-band ***support from me and course TAs***, plus doubling down on requirements for honorable behavior.

When I started to include meditation in what I taught students one-on-one, I quickly found that I was not the first to come up with the idea of using it in this way. Mingyur Rinpoche, specifically, had coined the term ***monkey mind*** to describe *precisely* what I was working on with the students.

Hopefully, at this point you understand the problem itself well enough to tell whether or not it might be *your* problem with high stress exams. If you never freeze up on exams, or already have strategies for coping when you do, good for you! You might still want to learn to meditate as (perhaps) *your* monkey might do things like keep you awake at night or keep you from making good life decisions, but the specific stuff below may not be useful to you. If it ***is*** your problem, though, here is step one:

Identify Your Triggers

Exam dysfunction is born from the synthesis of *involuntary* out-of-place fight or flight responses with an already overactive "superego"[3] or "inner critic"[4] . The inner critic *alone* can be a pain in the ass, but it is also part of what drives us to accomplish good things and avoid bad things and not altogether useless, until it *becomes the monkey* that literally never shuts up, never leaves you alone to actually *think*, unencumbered, to *be*.

So what specific events, or thoughts, or goals, or parental expectations, or circumstances, trigger out-of-place hyperarousal, especially in the context of academic work? Fear of flunking? Imagining the disappointment of your family when you fail? Visualizing how your life plans will be crushed by *just this one event* if it doesn't go well? Or even something external – a failed relationship, money problems, alcohol or drugs?

[3] Wikipedia: http://www.wikipedia.org/wiki/Superego.

[4] Wikipedia: http://www.wikipedia.org/wiki/Inner Critic. This is the contemporary "official" name for that inner voice that "judges and demeans a person", but honestly – isn't "monkey-mind" a much *better*, and somewhat broader, descriptor?

Yes, that's a quote from Frank Herbert's ***Dune***[5] . But it is *so true!* ***All*** of the triggers you thought up on the last slide are fundamentally ***fears!*** Ultimately, they are fear of failure. "Anxiety" is literally a synonym for a persistent, performance-degrading ***fear***.

Fear is ***literally*** the trigger for FoF responses that shut down our ability to think, that cause our vision to tunnel and look for threats so we can run from them or go berserk on them, that leave us shaking, with damp, clammy hands, that make our heart rate and blood pressure spike as our bodies prepare for a major physical stress ***that never comes!***

Our goal is to *try* to not be afraid while taking the exam. How can we manage this? Fear just *happens!* Or does it? Here are a few steps that will be amplified further below:

- Adequate preparation. "I have not done that which I ought to have done and am sore afraid..." is an adage. One can ***avoid*** being "sore afraid" by doing that which one "ought to do", beforehand! Be prepared! Then do your best! Forget the rest.
- The FoF response may be autonomic, but you are not *helpless* before it. Have a *strategy* for coping with it as it arises. This alone reduces the hopelessness that maintains the monkey-FoF loop.
- Do some serious auditing of your value system and fears. Do you *really believe* that a *single exam* will determine your entire future, or that your parents care more about your performance than they care about *you*?

[5] Wikipedia: http://www.wikipedia.org/wiki/fear is the mind killer. And yes, it actually has its own wikipedia page! Note that the "litany" is just a form of strategic meditation!

Work Out a Strategy Ahead of Time

As noted, merely *having* a strategy ahead of time will reduce your level of anxiety entering the exam and make it less likely that you will trigger FoF. If you've experienced the problem in the past, you know precisely how *helpless* you feel as you watch time slip by, wanting to work on the problem that triggered it but unable to do anything but *experience still more triggers* in your mind as the monkey recites them, one after the other, and gives you *no chance* to return to yourself, calm and able to think!

What are some things to consider including in your strategy? Remember the causes of the problem and what sustains the loop itself. As long as your body and brain are literally being saturated with catecholamines, neurotransmitters, and hormones all released to fight off sabertooths or run from charging mastodons, you won't be able to think. Trying to think about the *exam itself* and listening to the monkey's recitation of all of the *horrible* things that will accompany failure certainly won't work. It's time to ***think of something else*** until the threat level diminishes. Here are a few possibilities:

- Stop working, close your eyes, and meditate for a few minutes. You're not going to make progress while monkey-mind persists anyway, and quieting the monkey is the *only* thing that will restore the ability to make progress!
- Get up and (if the instructor permits it) go outside for a few minutes. Look at the sky, the trees, the earth. Take slow, deep breaths, clear your mind, seek peace.
- Move on to another (easier!) problem. Use good strategy taking the test!

Meditation: Give the Monkey Something to Do

As noted before, I didn't come up with the monkey-mind metaphor. As far as I know, Yongey Mingyur Rinpoche, pictured to the left, invented it (although he may well have been taught it by others – ideas like this often exist across generations). Rather than reinvent this particular wheel, then, I'm going to simply put a small collection of resources down below in which Rinpoche describes his own experiences with monkey-mind, and how meditation practices tame the monkey, ***make friends with the monkey***, give the monkey something to do ***other than make you miserable!***

- Our "Monkey Mind"
- Understanding the Monkey Mind
- How to train your Monkey Mind
- How Meditation Can Help You Make Fewer Mistakes
- How To Meditate

I'll only add two comments, primarily to "soften" the instructions in the last link. Don't make meditation into something complicated. It is very simple. Watch your breaths, count your breaths – that is the easiest and can be done (as Rinpoche notes) "anywhere, anytime, if you have two minutes you can meditate". Also, meditation is a *discipline*, a *practice*. You have to stick with it for *weeks* (at least) to train your mind, especially if you want it to be effective in a 2-5 minute window mid-exam!

The Crazy Nastyass Honey Badger

If you aren't familiar with the honey badger meme, I include a convenient link for you to watch the video (almost 100,000,000 views to date!). Be warned, it has some "nastyass" language in it! Nevertheless, the honey badger video *became* a meme because the honey badger, as portrayed, is a totally self-actualized, fearless, *integrated* little animal. It is a symbol for the state we would all like to achieve, with "honey badger mind" replacing "monkey mind". The key aspect of this persona is simple.

Honey badger *just don't care!*

This is a key part of your strategy. *Use* your monkey mind, your inner nag, to *prepare* for the exam – as noted, being well-prepared is a key component of reducing fear, and as Rinpoche notes, monkey mind is neither good nor bad and can easily be *useful* if you make friends with the monkey.

However, when you enter the exam room, you have to ***be like honey badger*** and train yourself to just *not give a shit* about how you do on it! This is the ultimate insulation agains fear. You have to teach yourself to ***just not care about how well you do*** while taking the exam so you can actually *do it and do well!*

This may initially seem paradoxical, but ultimately it describes a complete liberation of your inner self, free from both nagging monkey and fear.

Conclusion: Honor and Effort

Hopefully, the slides above have given you some insight into "Monkey Mind" and how it becomes a key component of an evil feedback loop when combined with the FoF reflex triggered out of place in e.g. an "important" exam.

Beyond that, hopefully they have given you some ***concrete suggestions*** for how you can effectively ***take up arms, against this sea of troubles, and by action, end them!***[6] Performance crushing exam anxiety is ***not your fault***, but that ***doesn't mean that you are helpless to do anything about it!*** Work with your instructor, talk to the Student Disabilities and Accommodations Office if necessary, with a *therapist* if necessary – as noted I am *not* a trained therapist and these slides are no substitute for real therapy or a psychiatrist where needed – and see if you can't at least *improve* your ability to take an exam from start to finish without losing more than a few minutes of time to anxiety triggered brain-freezing monkey mind plus an out of place evolutionary FoF appendage.

I'll conclude with a warning. There will always be easy – but wrong – routes to reducing your anxiety a *different* way: By taking advantage of your accommodations to *cheat on the exams* while you are out of the classroom or otherwise abuse the trust of your instructor. Needless to say, this will only add one *more* layer of crap that the monkey can use to ruin your life: worry about being caught, guilt, the certain knowledge that sooner or later you will be faced with a challenge that you cannot just cheat to beat.

Don't do this!

[6] Apologies to Hamlet...