

Managing Uncertainty With Overthinking. When Worry and Rumination Feel Productive

This article explores how high-processing minds use overthinking to manage uncertainty, why worry and rumination can feel like productive thinking, and how to break these self-reinforcing patterns.

Worry and rumination are usually the first things that come to mind when we talk about overthinking. Both are commonly defined as “repetitive negative thinking.” But while repetition is definitely the defining characteristic of both, the thinking doesn’t necessarily have to be overtly negative to count.

So what makes worry and rumination problematic, and different from other types of thinking? What makes them “the same thing” running in two different directions? And what makes them repetitive and so difficult to stop?

It is the fact that both of them are patterns. Patterns are, put simply, a go-to solution we learn mostly in childhood that buys us something we need or want. Those who find uncertainty hard to tolerate learn worry and rumination patterns as a way to buy some control over reality through thinking. Worry is used to buy control over the future. Rumination is used to buy control over the past. And because neither of those can actually be controlled, the same thinking that was supposed to bring relief from uncertainty loops and becomes exhausting.

Worry and overthinking can become patterns for anyone, but some minds are particularly prone to them.

High-processing minds are naturally analytical, curious, detail-oriented, and capable of processing large amounts of information. They are also prone to solving everything through thinking, including the things that thinking cannot solve.

And because of that, repetitive, looping thinking often doesn’t feel like worry or rumination. Without the apparent negative charge, worry and rumination can actually feel productive — like planning, a responsible thing to do, or simply “needing to understand better.”

This article discusses how the pattern of worry and rumination forms in high-processing minds, what it looks like in practice, why it seems productive, how to tell worry and rumination from actual productive thinking, and how to stop the loop once it has started.

How worry and rumination patterns form

The “Operating System” is the part of the mind that handles familiar situations automatically. When something similar comes up again and again, there is no need to think through the whole response from scratch every time. The mind can rely on a pre-built solution — a pattern — to get a familiar result.

For people with very active minds, one of the go-to responses to uncertainty, and the discomfort connected to it, is to throw all available processing power at the problem. Why does that seem like a good solution? Uncertainty is a difficult thing to sit with. It is hard not knowing what will happen next, and hard to accept that nothing can be done about what has already happened, including making sure it never happens again. Worry and rumination offer an attractive alternative. Both have many benefits as patterns, but the biggest one is that they make an unsolvable problem feel solvable. Worry makes it seem that if we just think through enough possibilities, we can prepare for what is going to happen. Rumination makes it seem that if we examine the past closely enough, we can understand exactly what went wrong and why.

Because anything even resembling a solution is better than no solution, thinking becomes a pattern to deploy whenever uncertainty appears.

Deployment: When uncertain, deploy an automatic pattern of thinking through every possible angle, meaning and consequence to gain a sense of having the situation under control.

The vicious cycle of worry and rumination

A pattern forms in the first place because uncertainty feels uncomfortable. Uncertainty being uncomfortable is not the problem in itself — plenty of things in life are unpleasant and we just go along with them.

And once worry and rumination become the go-to solution for dealing with that discomfort, a vicious cycle begins:

There is uncertainty, and this is uncomfortable. Thinking promises a solution, so we use it to make the discomfort go away. But thinking cannot really solve the problem of uncertainty. It loops, often goes negative, and the whole thing becomes even more uncomfortable. As the situation feels

increasingly out of control, the need to regain control grows. So thinking our way out of the discomfort and back into control becomes even more urgent.

And if we add beating ourselves up for having the pattern in the first place, we end up in a perfect vicious cycle.

How the pattern confirms itself

The pattern reinforces itself for two reasons, and neither of them clearly logical:

It ran. Every time the pattern runs, the automatic pathway deepens, so it fires more easily next time. The very fact that it ran is registered as proof it was needed.

The outcome was good. The pattern ran, the outcome was good, and the system associates the two — crediting the pattern for the outcome. This is the false positive: not even a correlation, just two unrelated things registered as cause. There is nothing and no one checking whether the outcome would have been good anyway, without the pattern.

A bad outcome doesn't count as proof against the usefulness of the pattern. The pattern runs on the idea that enough thinking can control the outcome. A bad result means more pattern was needed, rather than that the pattern was wrong.

The full self-confirming cycle — simplified example

John is traveling and will arrive late at the destination. There is a lot of uncertainty about what will happen on arrival, and the uncertainty is very uncomfortable.

The system deploys massive processing power to resolve the uncertainty:

John is sitting on the couch thinking: "I should arrive at 10pm, there's still time for the last bus to the city center. But if the plane is late? I can check landing times — it's late 20% of the time. If it's late I can still take the last train, but the station is farther away. Is there public transportation from there? Can I get there on foot? Can I buy the ticket by card or is it cash only? Should I take cash? I might need a taxi. What's the taxi situation in this country? How much does it cost? Should I download the app now? There might be no working Wi-Fi at the airport."

The thinking has no natural stopping point. The more the person thinks to get rid of uncertainty, the more things there are to think about. And the more things there are to think about, the more the loop feels necessary and productive.

Rumination

Because the whole process looks productive, high-processing minds often don't recognize rumination for what it is, or only notice there is a problem once they are already deep in a spiral. And the deeper into the spiral they get, the harder it is to stop.

How we picture rumination: An anxious person replaying in their head for months: "why, oh why did he leave me?"

What the high-processing version of rumination looks like

"What did I say? What did he answer? When was the last time he was nice? Were there any signs? What did that conversation mean? What did this sentence tell me about his state of mind at that moment?"

The problem is that the process looks like intense analysis, not rumination.

It is even harder to spot when the situation itself isn't particularly emotional. Going back over what happened again and again can look like simply trying to understand it better. And because the thinking can always be framed as learning something from what happened, it is easy for the loop to just keep going. What makes it worse is that from the outside, analyzing often seems like a wise, responsible, and completely necessary thing to do.

What rumination promises

Rumination often shows up when a situation is hard to accept. Something happened that we wish hadn't happened, or something didn't happen the way we wanted it to. We don't feel at peace with it, so we start trying to understand it better.

Promise 1: "If I understand it, I can accept it."

This is where rumination can look like a road to acceptance. The pattern promises that if we can just understand what happened and why, we will eventually be able to accept it. Rumination seems like a bumpy road, but with a prize at the end of the rainbow: the point where everything starts making sense, and one can finally let go.

But acceptance doesn't require understanding what exactly happened and why.

Acceptance and understanding are two separate things. One can understand something completely and still not accept it. No amount of thinking can, on its own, make a person accept something. And no amount of thinking can make a past event unhappen.

Promise 2: “If I understand it, I can prevent it.”

Sometimes the point of rumination isn't really to accept what happened, but to mentally “undo it” in the only way that is possible: by making sure it never happens again. The promise here is the same one worry offers: that enough thinking can control what happens in the future.

But understanding the past can't guarantee the future.

Things do not happen to us because we did not understand how to prevent them well enough. No amount of understanding what happened, or thinking through how it could have been prevented, can guarantee that a similar thing won't happen again in different circumstances.

How to make sure thinking about the past stays grounded in reality

The simple difference between productive understanding and the loop

Productive understanding: New elements → analyze → understand → less need for analyzing → reopen only if new elements arrive → analyze → understand

Loop: New elements → analyze → understand → more need for analyzing → analyze the same elements → assume there is still more to be understood → more need for analyzing

The question: Am I really learning here or just beating a dead horse?

The difference between functional acceptance and actual lack of acceptance

Functional acceptance: It happened, nothing to do about it even if it sucks and even if I wish it hadn't.

Lack of acceptance: I know it happened, but it shouldn't have.

The question: Am I secretly hoping the dead horse will get up if I beat it a bit more?

How to tell learning from a past event from rumination-worry

Learning from the past: I am trying to understand what happened so I can deal better with a similar situation in the future. Rumination-worry: I am trying to understand what happened so nothing similar ever happens again.

The question: What if exactly the same thing happens again? (Hint: “That can’t happen!” or anything similar means the whole analysis is exactly the rumination-pattern).

Worrying

Worry also doesn’t feel like worry to high-processing minds — not until it spirals completely out of control.

How we imagine worry: A sweaty person, panicking about a plane being late.

How high-processing worry actually looks: Two transport apps downloaded, backup cash tucked away just in case, transfer times calculated for three different scenarios, and detailed knowledge of landing times from the previous three months.

The many “advantages” of worrying

While rumination has a few obvious benefits, worrying as “ahead-planning” has a whole list of advantages for a high-processing person:

Responsibility: Traveling to another city on a delayed flight without a backup plan feels reckless. From the overthinker’s perspective, it is clearly better to know what to do “just in case” than to be caught completely unprepared.

Reward: If some version of the worst-case scenario actually happens, then the whole process feels like it was needed and “the best thing that could have been done.”

Superiority: An overthinker with a downloaded map and cash in a pocket can feel superior to those who didn’t prepare and are now wandering through the airport searching for information without any Wi-Fi.

Satisfaction: The whole process of planning is very satisfying for a brain hungry for details. Planning becomes the equivalent of an Easter egg hunt, in which each possible obstacle is an uncovered secret.

Planning feels like almost-doing: Downloading the apps feels like having handled the transportation, calculating the transfers feels like having crossed the city (without any of it actually having to happen).

Avoiding overwhelm in the moment: Planning seems perfectly reasonable from this perspective. It is better to think about things ahead of time while calm rather than when cornered.

Problems with seeing worrying as “planning”

Planning and doing are not the same thing

In a simple airport situation, this isn’t a huge problem. It becomes one when planning becomes a replacement for actual action.

Planning feels like doing for a few specific reasons:

- The mind creates vivid pictures of something as if it had already happened, and can start treating those pictures as if they were real.
- Planning can be just as exhausting as actually doing the thing — sometimes even more so.
- Planning is a great way to put things off — there is always one more thing to prepare before actually doing it.

This trap is captured well in a quote by Loopy, made famous by Chris Williamson:

“Preparing to do the thing isn’t doing the thing. Scheduling time to do the thing isn’t doing the thing. Making a to-do list for the thing isn’t doing the thing. Telling people you’re going to do the thing isn’t doing the thing.”

Addictive quality of “just needing to see the full picture”

High-processing minds have a natural pull toward deep understanding. For brains like that, analysis often feels incomplete until the full picture is properly laid out. The problem is that with both the past and the future, there is always more to figure out:

The past: Trying to understand what happened usually means factoring in other people and their reasons for doing things — which would require knowing what was going on in their heads.

The future: There are always more things that could affect what happens, more possible outcomes, and more factors to consider. There is no point where one can be sure everything has been taken into account.

What feels like “planning for probable outcomes” is preparing for an impossible catastrophe

Planning for the future feels like being in a fact-based documentary, but it is far closer to a Steven Spielberg production. The brain pictures future outcomes in a very condensed, symbolic way.

In real life, “something going wrong” usually means a long, tedious, boring sequence of waiting, double-checking, and figuring things out step-by-step.

The brain-generated version of “something goes wrong” is more often than not a spectacular catastrophe, with impressive lightning and doom music in the background.

In real life, there is always an after — a bad business decision is only a short middle, after which comes a long and undramatic process of actually dealing with the consequences.

A brain-generated version ends right at the catastrophic peak and doesn’t go any further. Great for dramatic effect, but pretty useless as a precise picture of reality.

Fast and automatic problem-solving circuits are off

It might seem like there are only two ways to make decisions: deep analysis or “just knowing.”

“Just knowing,” also called intuition, is a mystical gut feeling that other people seem to have naturally. To a high-processing person, this looks either impossible to develop or just plain dumb, because it seems to ignore real data and rely entirely on a vague gut feeling.

But there’s a third way. The brain can process information in the background and arrive at an answer without consciously working through every detail. This isn’t mystical intuition; it is still analysis — just a big-picture kind, instead of linear. Doctors, pilots, and researchers rely on it all the time. It works by recognizing overall patterns instead of breaking down every detail.

The very reason people overthink is also why this circuit never develops. Fast, automatic processing requires some tolerance of uncertainty, and some trust in one’s own ability to deal with problems. But let’s look at what happens with overthinking:

Uncertainty → discomfort → deploy heavy analysis → automatic circuit is unpracticed and weak
→ analysis feels more necessary → circuit weakens even more → analysis becomes the only way to solve anything

Over time, simply not doing the analysis starts feeling uncomfortable. So the natural state for most long-term overthinkers looks like this:

- Analysis is a go-to, automatic solution that provides comfort
- There doesn't seem to be any viable alternative anyway
- If one wants to stop analyzing, the gap causes discomfort
- And the discomfort is what an overthinker has been avoiding for years, so discomfort tolerance is very low
- Therefore stopping analysis causes even more discomfort
- And that discomfort makes the brain start analyzing again automatically

Which is, again, a full vicious cycle.

In-the-moment solutions for worry and rumination

The habit of checking if thinking is productive

Overthinking sprees are way easier to stop at the beginning than once they have snowballed into a full-blown spiral. Because thinking feels good right up until it doesn't, it is a good habit to run quick self-checks:

Productivity check: Is all this thinking doing anything useful?

- Is there anything here I haven't thought about yet?
- Is this really probable?
- Would understanding this change anything?
- Is there anything new here to analyze, or is it beating the dead horse?
- Is the amount of time spent analyzing this proportional to the weight of the situation?
- Is there anything more important to use the computational power on?
- Is all this thinking helping to make better decisions, or actually making any good decision impossible?

How to stop thinking about something

Thinking about something doesn't stop just because we tell ourselves to stop thinking about it ("don't think about a pink elephant"). The only way to stop is to move attention elsewhere.

There is more than one way to move attention:

- **Changing the subject:** getting really absorbed in thinking about something else. This only works if the new subject is actually interesting. Mysteries, riddles, open questions, and planning useful projects work particularly well.

- **Doing something physical that requires precision and concentration:** DIY, cooking, deep cleaning, gardening. Automatic tasks don't work, as they leave the mind free to keep thinking unnoticed.
- **Physical exercise** that is intense and not fully comfortable. It has to be intense enough that the mind doesn't have the chance to drift into worry or rumination.
- **Reading** something actually engaging. Movies and podcasts work less well unless they are extremely interesting, as it is easy for the mind to drift away.
- **Listening to sounds** works particularly well as a form of meditation / mindfulness practice. It is impossible to listen to something closely and think at the same time. Simply listening to sounds is an easy and satisfying way to stop a thinking spiral for at least a moment.

Interrupting worry and rumination spirals

As every high-processing person already knows, whatever one does — running, sewing, or coding — the thoughts will come back. Fighting the thoughts is one of the worst ways to deal with them.

Solutions that work:

1. Telling the pattern off.

There are multiple ways to tell the pattern off. Which one you choose will depend on your personality, but they're all effective where it counts: they interrupt the pattern.

Some examples:

- **Firm:** Nope, I'm not doing that today. No, not interested in this catastrophic movie.
- **Dismissive:** Yeah, yeah, heard it a million times before. Lovely story, can we move on?
- **Funny:** I don't think my one sentence yesterday needs a PhD dissertation, thanks, though! Wow, this is really a Brazilian telenovela I'm directing for myself.

2. Postponing

When stopping is impossible, what often works instead is postponing.

Some examples:

- I'll think about it if it actually happens.
- We'll cross the bridge when we come to it.
- Let's get some sleep and think about it tomorrow.
- A break from thinking will do me good here.

3. Mocking

If you can laugh at yourself in the moment, this is one of the quickest ways to break a spiral and make the thoughts visibly ridiculous to yourself.

Some examples:

- Obviously, the whole company sits at home replaying my humiliation in 3 acts.
- Definitely, the train will not arrive, no taxi will be available, the plane will leave early, and the next ticket will cost \$10,000.
- Did I analyze marine influences and 100-year graphs of bird migration before deciding what to name my business?

4. Limits instead of bans

When you know there is no way not to think about something, a good solution is to set a limit in advance. Limits are like deciding to have one piece of chocolate instead of the whole bar. Of course, that only works if you can generally stop after the one piece and not eat the whole bar.

Some examples:

- An intense 30-minute session instead of a whole day of thinking in the background.
- 3 possible worst-case scenarios and 3 possible solutions instead of “just don’t think about it.”
- A written recap of the current state of understanding instead of “I should stop coming back to it.”

5. A very important question

Whether thinking is “excessive” isn’t about how it looks compared to everyone else. It is only about what effect it has on the thinker.

So the very important question is: Do I think I should stop, or would it simply be better for me to stop?

The first one is about the norm, the second about your own wellbeing. “Better for me” is vague on purpose — thinking might feel good, and even productive, but if it is taking up space needed for work or other commitments, it would obviously be better to stop, regardless of whether you “should” or “shouldn’t.”

Long-term training for worrying and rumination

As we saw, the cycle looks like this:

Uncertainty → discomfort → deploy heavy analysis → automatic circuit is unpracticed and weak
→ analysis feels more necessary → circuit weakens even more → analysis becomes the only way to solve anything

To deal with worry and rumination long-term, three key stages of this loop need attention:

- Uncertainty intolerance and the discomfort that comes with it
- Deploying heavy analysis automatically
- A weak and unpracticed automatic circuit

Uncertainty and discomfort tolerance

As long as uncertainty causes a lot of discomfort, and that discomfort is avoided at all costs, there isn't much that can be done — trying to escape the discomfort will make worry and rumination fire. This means that both uncertainty and discomfort tolerance need to be trained long-term:

- **Discomfort tolerance:** The general capacity to sit with unpleasant things without immediately trying to escape them.
- **Uncertainty tolerance:** The ability to stay in the discomfort of leaving things open, unfinished, not fully understood, and unplanned.

Logically, you need some discomfort tolerance before you can start leaving the discomfort of not knowing as it is.

Discomfort tolerance training

The ability to tolerate discomfort is useful in pretty much every area of life. Most progress and change, from building muscle to quitting a habit to having a difficult conversation, requires some discomfort. Life is full of uncomfortable situations, so there are plenty of opportunities to train your discomfort tolerance.

Some examples:

- Staying under a cold shower for one more minute
- Not taking your clothes off the second you get hot
- Not distracting yourself with scrolling the moment boredom hits
- Waiting a few minutes before eating your favorite sweet

TRAINING: Choose one low-stakes uncomfortable thing each day. Endure it a moment longer than you normally would. Notice the discomfort and keep going. Repeat.

Uncertainty tolerance training

Just as above, uncertainty tolerance training starts with low-stakes situations where worry and rumination patterns fire.

The training is simple, yet not always easy: admit there is uncertainty, and don't try to overcome it with thinking.

Some examples:

- Checking bus times before leaving home → leave the house without checking anything
- Planning days off → wake up on a day off and decide what to do in the moment
- Replaying mundane situations to fully understand them → let go of the need to analyze the situation

Each repetition builds the tolerance and, over time, the habit of catching the moment the pattern fires.

TRAINING: Choose one low-stakes situation where you would normally worry, plan, or ruminate. Deliberately drop the worry or rumination. Notice the discomfort and keep going. Repeat.

Building fast-response circuits

“Fast-response circuit” might not sound like much, but behind the fancy terminology is something every high-processing person wants: self-trust, confidence, fast and accurate responses, and a mind that doesn't spiral into worry and rumination. It is definitely something worth building.

As with anything worth building, the process is not always comfortable.

Building this circuit as a high-processing person means deliberately setting aside your own best weapon — thinking — and doing things unprepared, again and again.

This is best trained in low-stakes situations (not a life-or-death work meeting or high-stakes business decision), but it still requires facing actual difficulty. Let's look at a simplified example:

John is an overthinker who over-prepares for every trip with plans, maps, and apps. To build an automatic circuit, he needs to skip the prep, especially when things might go wrong. By not using the pattern, he signals to his system that he doesn't need it. But John will only trust his ability to handle all the inconveniences once he actually faces them.

You only develop confidence in real-time problem-solving by actually solving problems as they happen, not by preparing for them. You only trust yourself to handle difficulties by actually dealing

with them, rather than thinking about them.

TRAINING: Choose a mid-stakes situation with a realistic chance of things going wrong, or pick a recurring “what-if” worry. Don’t prepare in any way. Handle whatever actually happens in real time. Acknowledge that you handled it. Repeat, gradually increasing the stakes.

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