



The Alarm Response

In this article you will learn about the alarm response to threats, identify your type of anxiety, and begin to plan your treatment. Chronic anxiety is like having an alarm sound in your mind and body that won't turn off. It just keeps ringing and warning you of danger. Everyone has a hardwired alarm system designed for survival. It helps you survive by mobilizing you to deal with threats. To understand how this valuable alarm response gets stuck in the "On" position, we first have to see how the mechanism works.

The four steps in the alarm response

1. Perception of threat—the alarm sounds.
2. Appraisal of threat—you assess how serious the danger is and whether you have the resources to cope.
3. Physiological and emotional responses—you experience a cascade of physical sensations preparing you to deal with danger, and the emotion of fear.
4. Behavioral response—you do something to feel safer, such as avoiding the threat, postponing the threat until later, distracting yourself from the threat, and so on.

Perception of Threat

There are three kinds of threats we are always alert for. The first is external. You're out in the woods and notice a bear lumbering in your direction. Or your boss frowns and says she's concerned about your performance. Or your partner seems withdrawn and disconnected. Whether the threat is physical injury, loss of your job and livelihood, or a possible rejection, the danger is that something bad will happen to you via outside forces.

Internal threats originate with sensations in your own body. Any kind of physical pain is an example of an internal threat. A surprising, unfamiliar sensation can be threatening, as are sensations associated with danger, such as rapid heartbeat, shortness of breath, or light-headedness.

The third type of threat is a conditioned threat, or phobia. This is an object, a situation, or even an internal experience that's not very dangerous itself, but has become associated with the expectation of harm. This process, based on classical conditioning, is how phobias are formed. Most of us experience very little sense of danger getting in a car. But if your car gets linked in your mind to a terrible accident you witnessed, or a scary near-collision you experienced, something may change. Your car changes from a neutral, non-frightening stimulus into a conditioned, threatening stimulus. You now have the same fearful response to driving your car as you had to the accident or scary near collision.

When these learned linkages occur, almost anything can become a conditioned stimulus/threat. You're probably aware of some of these phobias—heights, tight spaces, freeways, hypodermics, elevators, airplanes, public places, dizzy feelings, bees, feeling hot, darkness, thunder, rodents, dogs, spiders, and so on.



Appraisal of Threat

Once the alarm has gone off, your mind kicks in, trying to determine how much danger you face. First, there is an assessment of the level of threat. How big is the bear? Is it moving toward you? Does it look aggressive? In the case of conditioned threats (phobias) the evaluation of danger may be near instantaneous, and largely depends on how close you are to the feared object or situation.

Appraisal of the level of threat can run the gamut from accurate to utterly wrong. Your evaluations of conditioned threats, because they're driven by a learned relationship between a neutral stimulus and grave danger, will usually be distorted. Inaccurate or distorted assessments of danger are called misappraisals.

In addition to appraising the immediate threat, your mind will also try to predict outcomes. What bad things might happen in five minutes, tomorrow, in a month? This fortune telling response to threat is natural. Assessing possible catastrophic outcomes has helped us survive as a species. But when your mind locks onto threats and won't let go, when you can't stop preparing for all the harmful things that could happen, a normal mental process has gone awry. Instead of protecting you, this worry/rumination response can drive anxiety to overwhelming levels. A component called **defusion** can help you deal with **ruminative thoughts**.

The third appraisal in response to threat is an assessment of your ability to cope.

Do you feel strong enough to face it?

Do you have the resources to withstand the pain or stress this threat might bring?

The appraisal of your ability to cope, if it is high, leads to self-efficacy confidence that you can deal with difficult things. If it is low, you may experience distress intolerance—a sense that you can be quickly overwhelmed by painful events. **Distress intolerance** is a major contributor to chronic anxiety.

Outline of the typical threat appraisal process

Here is an outline of the typical threat appraisal process, teased apart and slowed down so that you can clearly see the three types of appraisals that determine whether your response will be a decline in anxiety or escalating anxiety and avoidance:

Perception of Threat: The alarm sounds: Danger!

Appraisals:

1. Big Danger?

No—Alarm stops, anxiety/arousal declines.

Yes—Alarm continues: Danger!

2. Catastrophic possibilities?



No—Alarm stops, anxiety/arousal declines.

Yes—Alarm continues: Danger!

3. More than I can cope with?

No—Alarm stops, anxiety/arousal declines.

Yes—Alarm continues: Danger!

Notice that the alarm bell shuts off if your appraisal of the threat or future danger is low. Likewise, the alarm diminishes or stops if you determine that you have the coping resources to face the threat. Only if the current or future danger seems high and you lack the ability to cope does the alarm continue, triggering both anxiety/fear and physiological arousal. **Avoidance behaviors** typically occur only after anxiety/fear and arousal have been triggered. The decision to avoid is often automatic and unconscious, unless you have a strong reason to face the threat (for example, avoidance would trigger dire negative consequences, or there is something you value about facing this particular fear).

Physiological and Emotional Responses

The physiological response to threat has been labelled the fight--or--flight reaction (Cannon, 1915), and more recently the fight, flight, freeze reaction (Clark, 2011). As soon as you decide there is a significant threat, your body reacts with a rapid sequence of protective responses.

Your sympathetic nervous system triggers the pituitary gland to produce the stress hormone ACTH, and your adrenal gland to release the neurotransmitter epinephrine. Ultimately this results in:

- a boost in blood pressure
- accelerated heart rate
- more rapid breathing
- slowing or stopping of digestion
- constriction of blood vessels in your skin (to minimize bleeding)
- dilation of blood vessels in your big muscles (to help you run or fight)
- dilation of pupils (to see better)
- tunnel vision
- shaking

All of these autonomic reactions prepare you to survive a threat in the best possible way by (1) running away, (2) fighting and defending yourself, or (3) freezing and playing dead. Your brain decides which of these to do in just a few seconds.



Meanwhile, as your body reacts, the hypothalamus and the limbic areas of your brain are beginning an emotional response—fear (a threat is right in front of you) or anxiety (a threat may occur sometime in the future). The emotion of fear/anxiety creates a painful level of arousal that makes you want to do something to stop it. While fear is adaptive, motivating you to avoid danger, false alarms trigger fear--driven avoidance that makes you run from what isn't dangerous.

Behavioral Responses

All emotions share a single function—to organize and motivate behavior that helps you survive. Anger, for example, drives aggressive behavior to protect you from attacks. Sadness pushes you to withdraw so you can re-evaluate following a loss or failure. And fear urges you to resist or avoid whatever scares you. So embedded in every emotion is an innate, hardwired urge to take action that helps to keep us alive.

The urge triggered by fear or anxiety is to seek safety. The most common safety behaviour is avoidance—the flight part of the fight--or--flight reaction. Avoidance can take three forms: avoiding certain situations, avoiding certain thoughts, or avoiding certain sensations. Or instead of immediate avoidance, you might try to determine whether you are safe by checking for danger or seeking reassurance to ascertain whether the threat is as dangerous as you feared. If a threat is unavoidable, you might perform certain mental or physical rituals like invoking divine help or hand washing to feel safer. **Safety behaviors** can take many forms.

Case Study: Rachel's Alarm Response

Several hours after getting home from a baseball game where Rachel ate two ballpark franks, she started to have sharp stomach pain. The threat led to an immediate appraisal of the level of danger.

Rachel's mother had died of cancer several years before, and had endured a great deal of pain. As a result, Rachel had begun to recognize physical pain as something dangerous, something alarming. What would turn out to be a bad hot dog was misappraised as highly dangerous and perhaps life threatening.

Rachel began trying to predict the future. Perhaps this was cancer, and she'd need surgery and chemotherapy. Like her mother, she might not survive. How would she provide for her two teenage boys, given that her ex--husband was a lunatic and would damage her sons if he got his hands on them? How would she keep a roof over her head if she couldn't work anymore? Rachel worried, or ruminated, about cancer until she threw up. Because she'd had a number of stomach upsets lately, she started thinking that maybe she also had irritable bowel disease.

As she struggled with the weight of catastrophic possibilities, Rachel wondered how she would cope. Her mother had "given up" at the end, and maybe she would, too. Rachel suspected that the stress would be overwhelming and that she couldn't cope. The misappraisal, worry/rumination, and distress intolerance were taking a toll. Rachel could feel her heart beginning to race. Her face and chest felt hot. She was light--headed. When she stood up, her legs felt shaky and weak.

Now the alarm response began merging with growing anxiety. Both her body and her emotions were screaming "Danger!" Rachel noticed all this and thought, I'm in real trouble. Half an hour later



Rachel indulged in a common safety behavior—seeking reassurance. She went online to read about stomach and colon cancer as well as irritable bowel syndrome. Weeks later when a friend invited her to another ball game, Rachel turned her down, using the most common safety behaviour avoidance.

Useful Resources

I have covered the below topics on my YouTube channel that you might find interesting for further studies. Check out the links to learn more:

[**Basic & Advanced Distress Tolerance Skills \(DBT\)**](#)

[**Cognitive or Thought defusion techniques \(ACT\)**](#)

[**How to assess and overcome Ruminative thoughts \(PTSD\)**](#)

[**Avoidance behaviours of anxious people \(Anxiety, SAD & GAD\)**](#)