

# The Amygdala and Fight/Flight Reaction

by Sophia Tutorial



## WHAT'S COVERED

In this lesson, we'll discuss how the brain's reaction to a perceived threat affects our behavior in a conflict. The areas of focus include:

1. The Amygdala and the Fight/Flight Reaction
2. How Our Reactions Impact Conflict

## 1. The Amygdala and the Fight/Flight Reaction

When we're under stress, afraid, or upset, our bodies automatically react in certain ways. We've all felt this at one time or another. This stress might also present itself in physical symptoms, such as:

- Rapid heartbeat
- Shallow breathing
- Tense muscles
- Sweating

There is actually a specific part of the brain called the **amygdala** that causes us to have such intense physical reactions when we're upset or nervous.

The amygdala is a structure in the brain which interprets stimuli as either a threat or non-threat and initiates the **fight or flight reaction**.

This part of the brain, which is what allowed the earliest humans to survive, notices what **athreat** looks like. A threat is a stimulus interpreted by the amygdala as harmful to an organism.

While the amygdala senses harm, it doesn't do a good job of distinguishing between real and perceived threats. In other words, it knows something is a threat, but it is not always accurate in determining how dangerous it is.

🔗 **EXAMPLE** This is why we could have the same automatic, physical reaction to simply sitting in a conference room waiting to get up and give a speech as we would to being out in the wilderness trying to defend ourselves against a wild animal.

When the amygdala perceives a threat, it initiates the fight or flight reaction, which is a condition in the body that is caused by the release of adrenaline to prepare the body to either flee from or combat a stimulus perceived as a threat by the amygdala.

Thus, getting up and giving that speech is perceived as a threat in the same way as running from a bear because of the release of adrenaline—a hormone that causes physical changes in the body during fight or flight.

Again, this reaction is automatic. The amygdala prepares us for a real threat, whether it's a wild animal, fire, tornado, or meeting with the boss to talk about a new promotion.

We have these automatic reactions because the release of **adrenaline** causes the heart to beat faster, and breathing to become more rapid; it causes more blood to come to the muscles so that we can run if we need to.



#### TERMS TO KNOW

##### **Amygdala**

A structure in the brain which interprets stimuli as threat or non-threat and initiates fight or flight reaction.

##### **Fight or Flight Reaction**

A condition in the body caused by the release of adrenaline, preparing the body to flee from or combat a stimulus perceived as a threat by the amygdala.

##### **Threat**

A stimulus interpreted by the amygdala as harmful to an organism.

##### **Adrenaline**

A hormone that causes physical changes in the body during the fight/flight reaction.

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## 2. How Our Reactions Impact Conflict

Now that we know we react physically even if the threat isn't an imminent danger, it's important to consider how this can play out in conflict.



#### THINK ABOUT IT

Recall the last time you had a conflict with somebody:

- Did you feel like your heart started to beat faster?
- Did your voice rise?
- Did your breathing become more rapid or shallow?
- Did you notice any other physical responses?

The amygdala has these consistent, physiological responses to conflict, or stressful situations; you had these physical reactions because you were upset.

Being in the midst of these reactions can really affect:

- Our perceptions
- How we behave
- Our ability to reason

Because the release of adrenaline is automatic, the amygdala's perception of a threat can escalate a conflict.

➡ **EXAMPLE** Imagine multiple parties in a conflict, each going through their own fight or flight process to what is upsetting them. If these reactions are left uncontrolled, or unregulated, they will escalate the conflict.



#### BIG IDEA

The amygdala is there to protect us against very real threats. If we are in imminent, physical danger, the body gives us a rush of adrenaline so that we can flee or fight if need be.

However, because it automatically operates this way, the amygdala can't tell the difference between real and perceived threats. This is why we need to be aware of how our fight or flight reactions can alter our perceptions of behavior and conflict.



#### SUMMARY

In this lesson, you learned how the **amygdala initiates a fight or flight reaction** when it senses real or perceived threats. Because this reaction is automatic, it is sometimes inaccurate. Thus, it's important to remember how our **reactions can affect conflict**. Good luck!

Source: Adapted from Sophia tutorial by Marlene Johnson.



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A stimulus interpreted by the amygdala as harmful to an organism.