

**- WHY READ BRAIN RULES? -**

*“We learned to cooperate, which means creating a shared goal that takes into account our allies’ interests as well as our own. In order to understand our allies’ interests, we must be able to understand others’ motivations, including their reward and punishment systems. We need to know where their ‘itch’ is. To do this, we constantly make predictions about other people’s mental states.”*

*“The brain acts like a muscle: The more activity you do, the larger and more complex it can become. Whether that equates to more intelligence is another issue, but one fact is indisputable: What you do in life physically changes what your brain looks like.”*

Leadership is at its core a human interaction. Understanding human factors, including the way our brains work to interpret what happens around us, is an important part of being a competent leader. In *Brain Rules*, molecular biologist John Medina takes a closer look at what goes on in our heads – how our brains work – and how that influences everything we do, whether we realize it or not.

While it’s far from being a traditional “leadership” topic, it’s an important book to read because it can help us understand not only the how and why of our own decision making, mood swings, mental awareness, etc., but that of others as well. Much, if not most, of what we do as leaders relies on interactions with other people. Being able to recognize why we’re behaving a certain way, and recognizing why others around us are behaving the way they do, is an invaluable tool for leadership. The better we understand ourselves and those around us, the easier it is to be an effective leader.

As you read *Brain Rules*, try to think about how the concepts the author covers apply in your experience. The important thing to consider as a leader isn’t so much the science behind the concepts, but how that science shows itself in our daily lives, through our actions and reactions. For example, knowing how to reduce stress by allowing followers to feel they have more control over their work (ownership), for example, ties in well with established leadership principles. Likewise, knowing that two people can go through the exact same experience and yet perceive it differently, and learn completely different things from it, can also be of value to a leader.

There are several videos by the author available online, many of which could be used for short training moments around the office or fire cache. Find them at the links below or by searching for “Brain Rules video” in any internet-based search engine.

*Dr. John Medina | Talks at Google (~ 52 minutes)*  
<https://www.youtube.com/watch?v=IK1nMQq67VI>

*Brain Rules YouTube channel (many short videos)*  
<https://www.youtube.com/user/brainrulesbook>

**- BRAIN RULES DISCUSSION QUESTIONS -**

**Rule 1 – Survival**

According to the author, the brain is designed to do what? How did humans cooperating with one another benefit the whole and advance the species?

**Rule 2 – Exercise**

How does physical activity influence our mental capabilities and/or mental states? How does the body “feed” the brain? How can you use that knowledge to keep your mental awareness up during long days on the fireline? Over long seasons? How does exercise improve brain function?

**Rule 3 – Sleep**

How does the circadian rhythm work, and how can you use that knowledge to your advantage? Are you a “lark,” “owl,” or “hummingbird?” How can you leverage that to improve performance in yourself and others? How can short naps improve performance? Are there ways you can safely use napping as a tool in wildland fire? Do we already do this? How does sleep loss impact our ability to safely fight fire?

**Rule 4 – Stress**

How does stress relate to control, or the illusion of control? What are some negative effects of long term stress? How can response to stress vary from person to person? What are some ways that can manage stress at work, as an employee or supervisor?

**Rule 5 – Wiring**

How does learning physically change the brain? Does knowing this change how you view “learning?” How can two people experience the same thing/event/stimulus and have different memories of the event? Knowing that every brain is literally different, how can fire leaders use that knowledge to improve team performance and safety?

**Rule 6 – Attention**

How can you present information to your crew/organization to best capture their attention? What does the author have to say about multi-tasking? We do a lot of teaching in wildland fire – how can you use the “10-minute” attention rule to provide better training?

**Rule 7 – Memory**

How can you use the knowledge that memory works better in the same environment it was created to put on better hands-on training? We rely heavily on memory in wildland fire – think about recognition primed decision making and “slides.” How does the idea that memory gives only an “approximate view of reality” change how you think about your decision making? Does it change it at all? The author talks about “elaborative rehearsal,” and how thinking or talking about an event right after it happens is important for memory. One tool we already use in fire too take advantage of this is the after-action review (AAR). Are there others? How can knowing the value of this tool in creating strong and accurate memories of an event influence how we do AARs and debriefs?

**Rule 8 – Sensory Integration**

How can differences in how individuals perceive inputs (say watching a fire make a run up a slope) impact our ability to make decisions? How can you use this knowledge to empower people to speak up if they see something that others might not, even if everyone is looking at the same hillside?

**Rule 9 – Vision**

Vision is a very important sense, yet it’s not perfect. What are some things you can do to mitigate “blind spots” and perception errors?

**Rule 10 – Music**

Musicians have been shown to be better at picking out specific sounds in a noisy room than non-musicians, and listening to music (and playing it) have been shown to have other benefits as well. Are there any situations or scenarios in wildland fire management where the benefits of music can be useful?

**Rule 11 – Gender**

Without getting too deep, are there gender biases in your organization? On your crew? Why is understanding emotions and gender differences important for leaders? What are some things the author recommends managers remember about emotions? What are some benefits to having teams of individuals with different methods of communicating and perceiving/approaching challenges?

**Rule 12 – Exploration**

How is exploration different from traditional “education?” How has curiosity, by you or others, changed how we manage fire? Has exploration, curiosity, driven any part of your fire journey? We’re all curious about something...what drives your curiosity?