



CRESCENT
PARK

**Caffeine: How Caffeine
Created the Modern World**
By Michael Pollan

Book Review

Dear Partner,

As we noted in our inaugural Book Review, we often find thought provoking books that spark discussions within our professional networks and firm. These books can be about developing oneself, developing a business, building relationships, or any other myriad of topics. In this iteration of the Crescent Park Book Reviews, we review a book dedicated to a topic very familiar to most of us, **1,3,7-trimethylxanthine (aka caffeine)**.

SUMMARY

1. Caffeine: How Caffeine Created the Modern World, by Michael Pollan.

In Caffeine: How Caffeine Created the Modern World, Michael Pollan explores the history of caffeine, the most widely used “psychoactive drug” in the world. The author provides a comprehensive history of caffeine, including the origins of our primary sources of the drug, coffee and tea. The *Coffea arabica* (coffee) plant, along with its close cousin *Camellia sinensis* (tea), evolved to produce a chemical (1,3,7-trimethylxanthine or caffeine) which has addicted a meaningful percentage of the human population (nearly 85% of the US population consumes caffeine daily). The ability of caffeine to addict human beings has dramatically impacted the destinies of these plants as well as humankind. Today, coffee and tea plants cover nearly 40 million acres globally. In their travels from African and Asian origins, these plants had an impact on the course of human history. The book provides a fascinating history of the influence of caffeine on human evolution.

KEY TAKEAWAYS

This audiobook was a great holiday read as it was both entertaining and educational. Many of us rely on caffeine to get us through the day, but we don’t think about the dramatic impacts this compound has had on human development. While there is a lot of content in this otherwise short story, we wanted to highlight three interesting facts that piqued (or should we say “percolated”) our interest.

- 1. The impact of caffeine on history and work.** Before the arrival of coffee and tea, alcohol was being consumed in Europe throughout the day; not only in taverns and after dark but for breakfast at home and even in the workplace, where it was routinely given to laborers on their breaks. In a sense, coffee’s arrival in Europe in the late 1600s (coffee generally arrived before tea) helped disperse Europe’s alcohol fueled fog, fostering a heightened alertness and attention to detail. Employers soon discovered this shift also dramatically improved productivity! The power of caffeine to keep us awake freed us from our circadian rhythms and opened the night to the possibilities of work. One early-nineteenth-century German physician described this “wakefulness wrested from nature” as caffeine’s gift to humankind. The author argues that tea from the West Indies fueled the industrial revolution in England. Tea is credited with allowing English workers to endure long shifts and brutal working conditions as well as maintain the mental clarity to operate complex machinery. Over time, a consensus emerged that caffeine allowed for an “increased capacity for work”, both physical and mental.

While caffeine consumption is certainly not a requirement at Crescent Park, most of the team consumes some amount of caffeine daily (either from coffee, tea, or Diet Dr. Pepper).

2. **How exactly does caffeine work?** For many years, scientists were confounded as to how caffeine could augment someone's energy without the function of calories. How can caffeine supply the human body with energy without calories? The book describes that "caffeine happens to fit snugly into an important receptor in the central nervous system, allowing it to occupy and therefore block the adenosine that would normally bind to that receptor and activate it." Adenosine is a compound that has a depressive and hypnotic (i.e., sleep-inducing) effect on the brain when it binds to its receptor. Over the course of every day, adenosine levels rise and begin binding to receptors. The chemical begins to slow our mental operations in preparation for sleep. However, the brain no longer receives these signals thanks to caffeine. Adenosine continues to circulate and gets where it needs to go eventually.

We found the blocking of adenosine to be a fascinating fact. Are we in fact getting energy from caffeine or are our brains being tricked?

3. **Is Caffeine a free lunch?** With the benefits that caffeine has brought to society, are we paying a price for the mental and physical energy – the alertness, focus, and stamina – that it gives us? The author highlights that caffeine has largely been cleared of its most serious charges (e.g., causing cancer, hypertension, heart disease, and mental illness). However, it turns out there can be too much of a good thing (as we have learned in investing). According to Matt Walker, author of *Why We Sleep*, while caffeine itself might not be bad for you, the sleep it's stealing from you comes at a price. According to Walker, research suggests that insufficient sleep may be a key factor in the development of Alzheimer's disease, arteriosclerosis, stroke, heart failure, depression, anxiety, obesity, and suicide. "The shorter you sleep", Walker concludes, "the shorter your lifespan".

Caffeine has a particularly deleterious impact on "deep" or "slow wave" sleep. Because caffeine has a "quarter life" of 12 hours, 25% of the caffeine in your post lunch cappuccino is still circulating in your brain when you go to bed at midnight. This limits the amount of "deep" or "slow wave" sleep we experience which is vital to our bodies. In some cases, Walker notes that late caffeine consumption may lower the amount of deep sleep we get by 20%.

SUPPLEMENTARY MATERIALS

In addition to this short audiobook, we also recommend the following additional sources:

- I. [This Is Your Mind On Plants](#), by Michael Pollan. This book has three sections which cover Opium, Caffeine and Mescaline and the impacts of these plants to "fiddle or completely alter the qualities of our mental experience". The chapter on Caffeine closely follows the audiobook outlined above.
- II. <https://www.youtube.com/watch?v=wMIyEy4RtdM>

All the best,
The Team at Crescent Park