## MULTITASKING: THE MODERN MYTH

You are busy. Regardless of your profession, on a daily basis you are inundated with a seemingly endless stream of phone calls, emails, text messages and meetings. Because of the rapid pace and high demands of the modern workplace, everyone is in search of ways to increase their productivity. One popular technique that many utilize in an attempt to execute numerous tasks quickly is multitasking. When a person attempts to multitask, he or she is trying to accomplish two or more tasks at the same time. Many professionals claim that their ability to multitask is one of their most essential skills. These workers contend that multitasking allows them to remain productive even when overwhelmed with activity. Yet, there is one problem with multitasking... it is impossible.

Research scientists have made some startling discoveries regarding the capabilities of the human brain. Science has confirmed that though the brain is an extraordinary organ, it has limited cognitive abilities. George Miller, the great cognitive psychologist, wrote about the brain's limited capacity to be attentive to and process information in his famous article, "The magical number seven, plus or minus two: some limits of our capacity for processing information" which was published in the *Psychological Review*.<sup>1</sup> Miller demonstrated how the brain can only grasp a small amount of information at one time. This is why phone numbers, excluding area codes, are only seven digits. Scientists maintain that if phone numbers were more than seven numerals they would be forgotten with far greater frequency.

The limitations of the brain to concentrate upon multiple stimuli are why multitasking is an impossibility. The brain can only contemplate one idea at a time. As Dr. Pierce Howard, Director of Research for the Center of Applied Cognitive Studies affirmed, "Notwithstanding teenagers' claims that they can do homework in front of the television set, the brain cannot focus on more than one stimulus at a time."<sup>2</sup> Neuroscientist John Medina echoes this assertion when he declared, "research shows that we can't multitask. We are biologically incapable of processing attention-rich inputs simultaneously."<sup>3</sup> Nobel Prize winning economist Herbert Simon emphasized that human beings consciously "operate largely in serial fashion. The more demanding the task, the more we are single-minded."<sup>4</sup> Psychologist Edward Hallowell aptly summarizes the mental impossibility of multitasking by comparing it to playing tennis with numerous tennis balls.<sup>5</sup>

## What You Are Doing When You Think You Are Mulitasking

When many people learn about the human brain's inability to multitask they become perplexed. This confusion is derived from the experience doing what they deem multitasking. So the question is, if the brain cannot multitask, what is it doing when people believe they are multitasking? Scientists have identified that when the brain attempts to multitask it is actually diverting its focus from one task and giving it to another. As well-known research scientist Mihaly Csikszentmihalyi affirms, "Humans cannot really successfully multitask, but can rather move attention rapidly from one task to another in quick succession, which only makes us feel as if we were actually doing things simultaneously." Though

your brain can maintain a basic awareness of its surroundings, it can only thoughtfully deliberate one idea at a time. So as you read this article and ponder the concepts it is espousing, your brain is unable to simultaneously contemplate what you had for lunch yesterday. Your brain can only think about this article or yesterday's lunch, but not both.

The reality is that those who believe that they are skilled at multitasking simply have good memories that allow them to remember the thoughts they had before they jumped to the other activity. Never-theless, regardless of the strength of one's memory, juggling multiple tasks concurrently will hinder productivity. There is a vast amount of scientific research which has verified that bouncing back and forth between tasks lengthens the time needed to complete the tasks and reduces one's effectiveness in the execution of the tasks.<sup>6 7 8 9 10</sup> For example, a research study which examined the effects of talking on a cell phone while driving found that by focusing on a phone call, the driver's impairment was nearly equal to being drunk.<sup>11</sup> In addition, the *Harvard Business Review* published the results of a study that analyzed the behaviors of daily workers. The research found that the more the workers moved back and forth from task to task, the less they accomplished. The conclusion of the research was that workers should "stick to one thing at a time." <sup>12</sup>

Though the notion of multitasking may seem alluring, science has proven it to be a modern myth. The human brain can only concentrate on one idea at a time. Consequently, by focusing on one task at a time you will improve your productivity. As legendary management expert, Peter Drucker stated, "If there is any one 'secret' of effectiveness, it is concentration. Effective executives do first things first, and they do one thing at a time."<sup>13</sup>

## About the Author

David Hoffeld is CEO of the Hoffeld Group, a research based sales training, coaching and consulting firm that is the leader in the integration of proven science and sales. The Hoffeld Group takes the repeatable and predictable principles, which science has proven to create and enable influence, out of the laboratory and academic journals and apply them to selling. For a deeper look at the Hoffeld Group's groundbreaking research and innovative sales strategies visit HoffeldGroup.com.



## Notes

**1**. G. A. Miller. "The magical number seven, plus or minus two: some limits of our capacity for processing information." *Psychological Review*, 63, 1956. p. 81 – 97.

2. Pierce J. Howard. The Owner's Manual for The Brain. (Austin: Bard Press, 2006). p. 497.

3. John Median. Brain Rules. (Seattle: Pear Press, 2008). p. 85.

4. Herbert Simon. Administrative Behavior, 4th edition. (New York: Simon & Schuster, 1997). p. 90.

5. Edward Hallowell. Crazy Busy: Overstretched, Overbooked, and About to Snap! (New York: Ballantine Books, 2007). p. 19.

6. R. Rogers and S. Monsell. "The costs of a predictable switch between simple cognitive tasks." *Journal of Experimental Psychology: General*, 124, 1995. p 207-231.

7. R. Meuter and A. Allport. "Bilingual language switching in naming: Asymmetrical costs of language selection." *Journal of Memory and Language*, 40, 1999. p. 25-40.

8. J.S. Rubinstein, D.E. Meyer and J.E. Evans. "Executive Control of Cognitive Processes in Task Switching." *Journal of Experimental Psychology: Human Perception and Performance*, 27, 2001. p. 763-797.

9. N. Yeung and S. Monsell. "Switching between tasks of unequal familiarity: The role of stimulus-attribute and response-set selection." *Journal of Experimental Psychology-Human Perception and Performance*, 29, 2003. p. 455-469.

**10.** Harold Pashler. "Dual-Task Interference in Simple Tasks: Data and Theory." *Psychological Bulletin*, vol. 16, no. 2, 1994. p. 241.

**11.** David Strayer, Frank Drews and Dennis Crouch. "A Comparison of the Cell Phone Driver and the Drunk Driver." *Human Factors*, vol. 48, no. 2, summer 2006. p. 381 – 391.

12. "The Multitasking Paradox." Harvard Business Review, March, 2013. p. 30.

13. Peter Drucker. The Effective Executive. (New York: Harper Collins, 2006). p. 100.