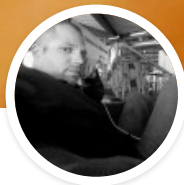


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Cutting Through the Dust, Limitations in Perception

by AJ Powell | 1 Comment | 10 min read



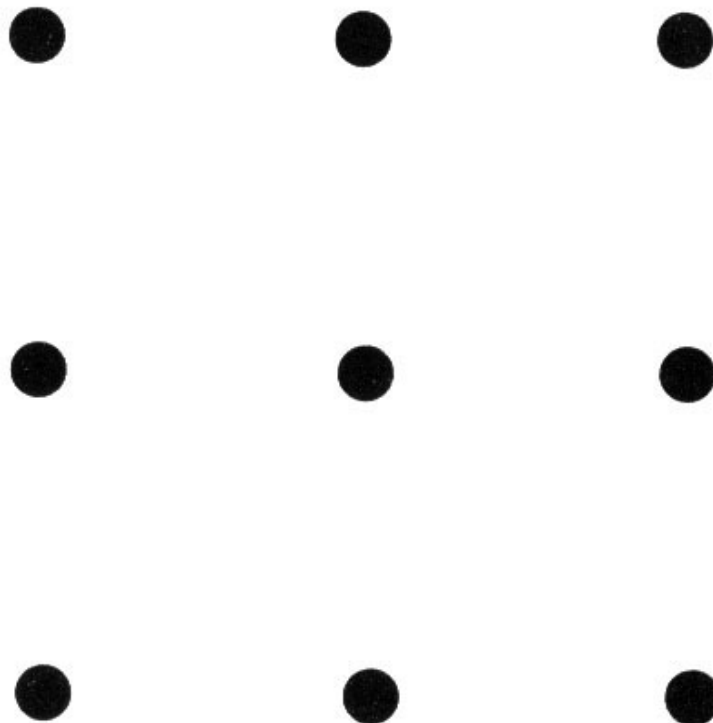
Written by [AJ Powell](#)

Let's participate in some real-life research, shall we?

Take a look at the following picture. **WITHOUT** doing a single internet search, read the following instructions:

Print out the following picture. You have (1) minute to complete the puzzle and then **RETURN** to reading here.

Instructions: Without lifting your pencil (or pen) from the paper, draw FOUR (and ONLY four) STRAIGHT LINES that connect all nine dots shown here:



Where you able to solve the puzzle?

What are we looking at here? If after one minute you still couldn't come up with the answer, you just learned a lesson in Bonded Awareness. Bonded Awareness, as Bazerman and Moore (2013) point out, is a condition in which individuals “ignore predictable, accessible, perceivable, and important information, while paying attention to other equally accessible but irrelevant information.” (Bazerman & Moore, 2013, p. 61).

This problem is based on real-life research studies that use simple puzzles to engage the mind and test awareness capacity through problem solving skills. What Bazerman and Moore point out, is that human beings simply lack the attention capabilities necessary to pay attention to every single potentially relevant fact or bit of information within our environment, and this directly impacts our decision-making abilities. Sure, we can certainly process more than a supercomputer in the blink of an eye, but that does not mean we are without limitations. Human beings are consistently susceptible to information overload, and as a result, we have developed learned behavior in information filtering and judgement making skills that are often carried out unconsciously, automatically, and believe it or not, heavily biased and very inefficiently. In the end, we often ignore critical information.

By now you may be asking, “How is this related to leadership and our journey of self-improvement?”, and the answer will soon follow, but first, let's develop a bit more understanding of this phenomena of the mind, shall we?

Check out this short video as an example:

Did YOU notice the gorilla or the color change? When I watched this video for the very first time, I noticed the gorilla and even got the correct answer for the number of passes, but failed to notice the person leave or the changing of colors in the curtains.

Bonded Awareness comes in three primary categories: Inattentional Blindness, Change Blindness, and Focalism and the Focusing Illusion.

The video does a great job at highlighting what was just discussed in our perceptive limitations due to information filtering. All in all, however, the important task of the video – according to the instructions – was to count the number of passes. This, it seems, is often done with a high amount of accuracy for most people. And while it is true that the video does prove a lack of perception for the individual, the count was the primary task, and as such, the task of most importance.

So you are probably asking yourself now, “What of it? Why in the world is this important to Leaders?” Well, one could make two arguments here:

1: That the instructions purposely led the viewer into a blinder-like state of awareness (fascination / fixation), whereby it purposely set the viewer up into a state in which their focus was concentrated on one specific task deemed of the most importance in the instructions. This, in turn, purposely setup the viewer for failure in noticing any other change during the video. The argument here would be that any other change noticed was not of any great importance, and if noticed by the viewer in the first place, would have simply become a “Bonus” at best.

2: Because the important task gained the highest amount of attention, and maintained high levels of success, it could be argued that this video in no way proved the research testing valid, yet still gives Bazerman and Moore’s argument credit, “that bounded awareness ‘prevents them (people) from noticing or focusing on useful, observable, and relevant data, leading people to ignore accessible, perceivable, and important information, while at the same time, causes them to pay attention to other equally accessible but irrelevant information’ (p. 63).” Since the only task of any importance was clearly defined by the initial instructions, and that task was completely unaffected by any other event that took place during the video, it could be argued that, not only was the viewer purposely setup for failure to notice any other change, but noticing any of those other changes never mattered to begin with because they were not important, relevant, or useful.

WHOA! Is this a form of good judgement making? Absolutely NOT! As we well know, focusing on “the task at hand” while ignoring other bits of information could very well result in mission failure or even get you or your team seriously injured or killed!

Now, we have already argued that human beings are limited in awareness capabilities. Science in many fields of study has identified a large array of physical and psychological impairments that limit our capabilities. They come in the form of illusions, and are often unnoticed due to a lack of education, and/or experience.

Physically, we have Vestibular Illusions, Visual Illusions, and Proprioceptive Illusions. All of these play a large part in our physical capacity to pay attention, take action, communicate, and/or process information. Some of these Illusions are incapacitating, others are merely annoyances, and some even create psychological illusions – like Fascination / Fixation, for example.

Fascination / Fixation is a physical visual illusion that impairs an individuals mental and psychological processes in judgement and reaction timing. When physical and psychological stressors increase to higher levels, and the level of tasks increase (Task Saturation), combined with the level of importance to specific tasks or processes, most individuals enter into a state of fascination towards an event or goal, and fixation upon a smaller number of tasks necessary during that event, and to which are required to complete or achieve

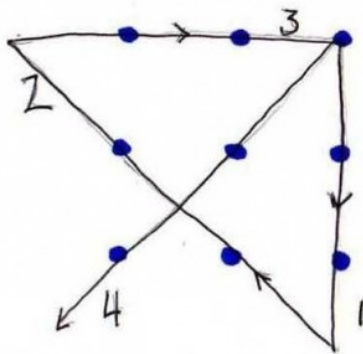
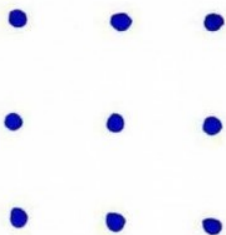
that goal. This in turn dramatically decreases individual perceptive capabilities while increasing their demands for dependency on outside resources. In most occupations, this means very little. If driving a car, this will more than likely result in an accident of some kind, while in some occupations (like aviation, to provide one example) it can and will be deadly.

Recognition of Task Saturation, Understanding of Capabilities and Limitations, and Realization of Potential Illusions are all things that can be taught and trained on. Practical and Formal instruction can help identification of these things, while gaining the experience necessary to overcome them. As we gain experience, we also gain perceptive capability, however, it is not as if we are completely capable of removing perceptive boundaries entirely as much of our inabilities are physical limitations beyond our control. This is where well-trained teamwork comes into play, a form of outside control that provides a balance to individual capability limitations. Simply put, more sets of experienced senses combined with proper communication techniques, equals the ability to overcome nearly all individual perceptive limitations.

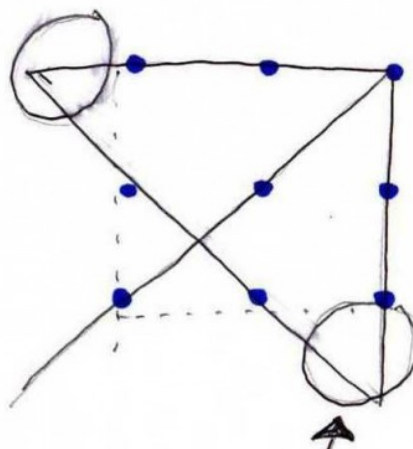
It is for these reasons the argument could be made that the research problems presented here are flawed and not engaging enough to hold weight in the argument on "Perception", yet at the same time, are validated by Bazerman and Moore's conclusions. The experiments in no way took into account enough variable situations, aspects, or real-life possibilities to be considered of value in the argument, yet they are proven true by use of other examples. We already know that human beings are physically and mentally imperfect and limited to certain extents in capacity and capability, but the research using puzzles like these is limited to environments and factors which are not anywhere near relevant for a vast number of situations encountered in real-life occupations, further, they never took into consideration training, experience, or outside resources like teamwork. It is here that we now find the loophole... Teamwork.

Back to those dots from earlier... if you are still racking your brain over it, here is the answer to the "9 Dot Puzzle"

"9-dots-exercise"
Thinking outside of the box...



Solve the problem



Message:
Think "outside of the box"
Our mind puts a border around the box

Now that you know the answer, you have gained some new perspective as well as new experience. Now, try giving this same puzzle to someone you know, and when they can't figure it out, your ability to guide them

to the right answer will validate what we just established, how Teamwork can overcome limitations in perception. But what is it about “Teamwork” that makes it all possible?

We have a very real capability to overcome limitations in perceptions, and its called open communication. Open communication within organizations allows for the free flow of ideas that increase team efficiency and capability. For leaders, this directly translates to asset multiplication, leadership effectiveness, and overall success. Too often are leaders willing to wear perceptive “Blinders” that damage their ability to make effective decisions. They falsely believe no one within their own organization – especially subordinates – could possibly maintain the knowledge or experience to help, offer new ideas, new perspectives, or maybe even have the answer already. They run the risk of damaging the organization, holding it back from achieving higher levels of success, or treading into the realm of Toxic Leadership.

Here’s the bottom line...

As a leader, do not ever be afraid to think outside the box, include the entire team, listen to your peers, and be willing to set aside selfish, self-centered pride and biases so that you can heed useful information and ideas. We all have built-in Perceptive Limitations, and everyone on the planet is able to fall into the trap of Bonded Awareness... After all, we can’t see everything. Yet through training, experience, and teamwork that includes non-biased open communications, we are able to overcome our limitations, avoid Fascination / Fixation, and connect the dots.

Sound Off!

In this discussion, we talked about how our brains sort through information in a biased way that effectively limits our capacity to process large amounts of information at any given point in time. This “Bonded Awareness” can keep us from solving puzzles, prevent us from remembering events clearly, and even limit our judgement when we need it most...

Take a few minutes to think of a time when you might have been in slightly stressful situation, and then try to see if you can all of the things that were going on around you at that exact same time... I’ll bet you can’t remember even a little bit of those things that were outside of your primary focus.

Now consider these questions:

1. In what way have you learned to overcome Bonded Awareness based on the analysis we just covered?
2. How do you think this new information could help you improve your leadership capacity and capabilities?

Take a few moments to think about these questions, then write **your answers** in the **comments below** so the community can discuss, engage, learn, and grow!

Reference:

Bazerman, Max H. & Moore, Don A. (2013). Judgment in Managerial Decision Making. Eighth Edition. John Wiley & Sons, Inc.

[Change Leadership Leadership Development Limitations Perception](#)

About the author



AJ Powell

AJ is a retired U.S. Army NCO who served in both the U.S. Navy and U.S. Army. He is a combat veteran, and has participated in contingency operations around the world. AJ is the Owner of Veteran Leadership Solutions, the Founder and Editor in Chief of The Warfighter Journal, and is a published Sociological Analyst, Researcher, Guest Lecturer, and Public Speaker. He is a graduate of Pennsylvania State University with a focus on Sociology and a science degree in Organizational Leadership, and is published in the field of sociology. AJ is an inductive analyst; public figure; researcher/writer; aviator; a certified advanced operational diver; professional instructor, trainer, mentor, and adviser; snowboarder; motorcycle rider; world traveler; he enjoys long distance endurance events, and much more.